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ABSTRACT

This fourth annual publication looks at five trends that threaten Arizona's future: (1) a talent shakeup where well-educated young professional and highly skilled immigrants leave the states; (2) the Latino education dilemma, manifest by the fact that only half of Arizona Latinos obtain a high-school diploma; (3) a fuzzy economic identity characterized by a narrow base of high-tech factories, a low-wage legacy, and a lack of intellectual facilities; (4) lost stewardship in which leadership has become a spectator sport; and (5) a revenue sieve where a narrow tax base hampers the state's ability to raise money. In examining these problems, the report focuses on the aging baby-boom population; the declining number, percentage wise, of residents with a bachelor's degree; the lack of leaders; and an unbalanced tax system. The report suggests a number of remedies to these problems: put Arizona's quality of life at the center of economic development efforts; educate the populace, in particular the Latino population, through early childhood education and sustained nurturance through high school and beyond; reward graduates; develop a "thinking" economy; look in new places for leaders; and update the tax systems for the new economy by rebalancing the revenue mix and broadening the tax base. (Contains 37 references, 20 figures, 10 tables, and 4 maps.) (RJM)

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APC

ARIZONA CHOICES

Five Shoes Waiting to Drop on Arizona's Future

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OCTOBER 2001

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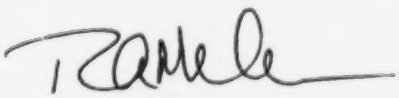
Morrison Institute for Public Policy is pleased to present its fourth annual *Arizona Policy Choices* volume. The purpose of *Arizona Policy Choices (APC)* is to provide objective, in-depth analysis of and recommendations on critical public policy issues. Since the series' inception, Morrison Institute has developed the *APC* volumes by engaging university scholars, Arizona policy leaders and national experts in the policy issue under consideration.

Previous issues of *Arizona Policy Choices* include:

- *Balancing Acts: Tax Cuts and Public Policy in Arizona*
- *Growth in Arizona: The Machine in the Garden*
- *The New Economy: A Guide for Arizona*

But *APC* is much more than a report. It is designed to stimulate debate, inform decision making and be a reference for the future. An integral part of the *APC* project is engagement of citizens and public policy leaders in discussions of the topic and the policy choices associated with it.

APC has garnered respect in Arizona and across the country because the volumes have presented creative thinking on leading-edge topics. Morrison Institute continues that tradition this year with *Five Shoes Waiting to Drop on Arizona's Future.* The research, analysis and recommendations presented in the following pages offer a new approach to five issues of vital importance to Arizona. I invite you to study the issues here and to use this publication as a basis of discussion with others.



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Okay, so... what's next?

Will the flaws in Arizona's outmoded tax system gradually render the state unable to pay for the public services required for economic growth?

Will the "next new thing" in technology mean Arizona will lose its competitive edge in microelectronic manufacturing?

Will poor educational opportunities for Arizona's Latino youths hold them back – and hold the state's economy back as well?

In fast-moving times like these, everybody wants to know: What's next? What's the next wave of social and economic change out there? As the NASDAQ sags and uncertainty grows, leaders especially want to know how to ride the next wave rather than be tipped upside down by it.

And today, such nimbleness matters even more. Foresight is everything now. To paraphrase the editors of *Fast Company* magazine: The only sustainable form of leadership is "thought leadership," which perceives new dynamics quicker and makes smarter adjustments faster than the competition.

In that spirit of anticipation, Morrison Institute for Public Policy presents *Five Shoes Waiting to Drop on Arizona's Future* – its fourth *Arizona Policy Choices* report. Like its predecessors, *Five Shoes* is an attempt to help public policy makers deal with the present by anticipating the future.

What do we mean by "shoes waiting to drop?"

We mean the trends that are already well under way – but that we can't quite see yet. We mean trends that could overwhelm us if we don't spot them now and aggressively use our knowledge to plot a positive course for the future.

There are always plenty of shoes waiting to drop on our society. But the five we deal with here are the most fundamental ones – those that could make or break Arizona's success in the future. They are:

- A Talent Shake Up
- Latino Education Dilemma
- A Fuzzy Economic Identity
- Lost Stewardship
- The Revenue Sieve

All of these challenges require us to marshal the skills and the creativity of Arizona's most important resource, its diverse and energetic population. For in the end, Arizona's future depends on gathering the best efforts of all kinds of people and making sure they have the abilities and opportunities they need to create a prosperous, healthy society.

To do that, we have to face the challenges head-on. Too often we say: "If only someone had warned us...we would have acted." Well, with these pages, five definite alarms endeavor to motivate constructive action before it is too late.

So look out, Arizona! Shoes are waiting to drop. Let's not get stepped on.

Five Shoes Waiting to Drop on Arizona's Future

Executive Summary

What do we mean by "shoes waiting to drop?"

We mean the trends that are already well under way – but that we can't quite see yet. These trends could overwhelm us if we don't spot them now and aggressively use our knowledge to plot our course for the future.

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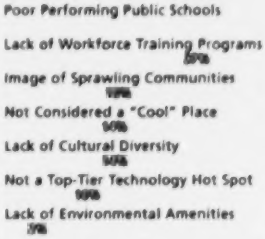
Talent Shake Up

We think we're good at attracting brain power. But we're not as good as we think we are. And we may start losing it – in both the public and private sectors – if we don't work harder to land and keep tomorrow's footloose talent.

Talented Prospective Workers Have Reservations About Locating in Arizona Because of...


Poor Performing Public Schools
Lack of Workforce Training Programs
Image of Sprawling Communities
Not Considered a "Cool" Place
Lack of Cultural Diversity
Not a Top-Tier Technology Hot Spot
Lack of Environmental Amenities

Brain power is everything for states in the new economy, and frequently it is provided by "yuppie baby boomers," well-educated young professionals and highly skilled immigrants. Unfortunately, the baby boom is aging, and uncertainties surround Arizona's near-term ability to attract and retain the best and brightest from that and other discriminating, highly mobile groups. Arizona risks losing out in the world-wide scramble for skilled workers to improve its standing in the knowledge economy.

The bottom line: Arizona must boost its quality of life to boost its ability to keep and attract the world's best talent.

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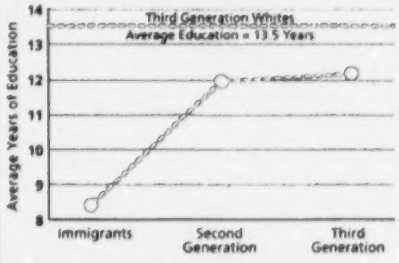
Latino Education Dilemma

Latino youth are upwardly mobile already. But they need better education for Arizona to take full advantage of the possibilities this exploding population offers.

Latinos born in Arizona make up much of their immigrant parents' educational deficits.

U.S.-Born Mexican Americans Narrow the Education Gap



Still, only half of all Arizona Latinos obtain a high school diploma. This suggests the opportunity and challenge of educating the state's Latinos, who now represent roughly half of the under-18 population in Phoenix and Tucson. With effective education, the Latino young could become a potent new source of talent in the state. Without it their skills deficits will exacerbate Arizona's coming shortages of skilled labor.

The bottom line: Arizona's future economic and social well-being depends heavily on erasing the educational deficits of the state's young Hispanic residents.

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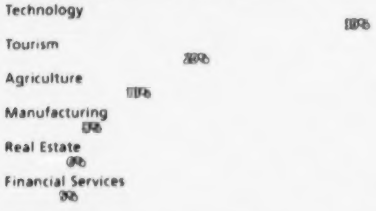
A Fuzzy Economic Identity

Arizona is growing high-tech jobs. But we haven't yet met the challenge of ensuring that we can excel in the new economy over the long term.

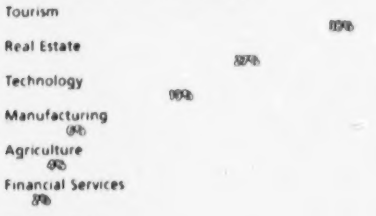
Name three things Arizona says it wants to be great in. That is hard to do because Arizona does not approach its economic future with a singleness of purpose. Many of its leaders want to compete with California, Texas and Colorado as centers of the knowledge economy. But just as many others are content to keep on promoting Arizona as a perpetual construction machine or a retirement haven. This split personality is a stumbling block. Going forward, Arizona will lead – or not – depending on its desire and discipline to be distinctive and great in "new economy" ways.

Arizona has ridden the "electronics wave" of the emerging new economy pretty well. But to catch the next wave, the state must overcome its narrow base of high-tech factories, its low-wage legacy and lack of intellectual facilities and talent working on "the next big thing." In Arizona, we "make" but we don't "think" and thinking is where future economic growth is likely to occur.

Arizonans Hope Arizona Will Be a Technology Leader in the Future



But They Think Arizona Will Be Known for Tourism and Real Estate



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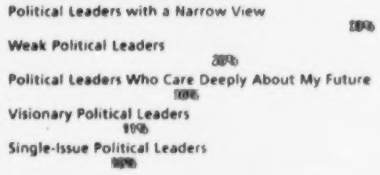
Lost Stewardship

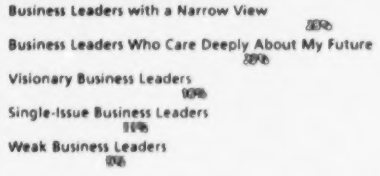
Leadership has become a spectator sport in Arizona.

Less than a quarter of Arizonans think state business and elected leaders care about Arizona's future.

Citizens' Perceptions of Arizona's Political Leaders


Political Leaders with a Narrow View
Weak Political Leaders
Political Leaders Who Care Deeply About My Future
Visionary Political Leaders
Single-Issue Political Leaders

Citizens' Perceptions of Arizona's Business Leaders


Business Leaders with a Narrow View
Business Leaders Who Care Deeply About My Future
Visionary Business Leaders
Single-Issue Business Leaders
Weak Business Leaders

Whether Arizona evades the threats discussed in this report or overcomes them depends in large part on the extent to which Arizonans act as leaders. Many appear to be standing on the sidelines and waiting for others to make things happen. At the same time, tackling the future with a traditional leadership style – focused only on single issues, set ideology, political survival and self interest – won't help Arizona excel in the early part of the twenty-first century. For Arizona to succeed, its leaders must view themselves as stewards of Arizona as a place. In the final analysis, a location remains only as precious and essential as its leaders and inhabitants believe it to be. So we have a clear leadership search: Who has enough intelligence, imagination, cooperation, and commitment to make the best use of the opportunities and challenges before the state and its regions?

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The Revenue Sieve

Arizona's tax system is old and full of leaks.

Too many exemptions and too narrow a tax base hamper Arizona's ability to raise revenues efficiently.

The proliferation of sales and income tax credits in the last decade is one case in point.

A Hodgepodge of Isolated Political Decisions Throughout the 1990s Has Created a Revenue Sieve

Meanwhile, fundamental economic, technological and demographic trends are further eroding the effectiveness of an outmoded tax system. Most notably, the state's continuing shift to a service economy, the rise of e-commerce and the simultaneous aging and Latinization of Arizona all threaten to slow the growth of state and local tax collections even as service needs increase.

The challenge is clear: Ensuring the integrity of the system requires fundamental reform of a leak-filled structure that has grown too reliant on sales taxes.

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A Talent Shake Up

We think we're good at attracting brain power. But we're not as good as we think we are. And we may start losing it – in both the public and private sectors – if we don't work harder to land and keep tomorrow's footloose talent.

In today's "knowledge economy," what matters is the intellectual capacity of the workforce. Places succeed when they can mobilize their homegrown talent – and attract new brain power – to dream up the ideas, devise the processes, and execute the business plans that point the way to success.

Since talent is mobile, however, a high-stakes competition has broken out among places to attract – and keep – three prominent demographic groups with the knowledge and skills required for a successful economy: aging baby boomers, young knowledge professionals and highly educated immigrants.

Unfortunately, Arizona is not positioned well to attract and keep the knowledge workers it needs. Most of the state's immigrants tend toward lower skill levels. Meanwhile, Arizona suffers from an image problem among the cutting-edge young knowledge workers who increasingly make regional economies go. These professionals tell researchers Arizona lacks the urban fabric, "coolness" and public schools they want. Finally, it's unclear whether, in the twenty-first century, Arizona can continue to attract the one well-educated group with which it has a track record: retirees. Baby boomers begin turning 55 this year, and there's no guarantee that they will embrace Arizona's traditional resort-style retirement communities as their predecessors have.

Simply put: Arizona does not yet have what it takes to win in the scramble for key talent.

To fill the gaps, Arizona must boost its quality of life. Since the best workers can choose where to live, Arizona must move beyond its traditional "niches" by building distinctive world-class communities with world-class amenities. To do this, policy makers must understand precisely what the most discriminating talent groups really want, and then deliver it with an authentic Arizona twist – whether it be vibrant new streetscapes and good schools or more options for continued employment later in life.

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TABLE 1

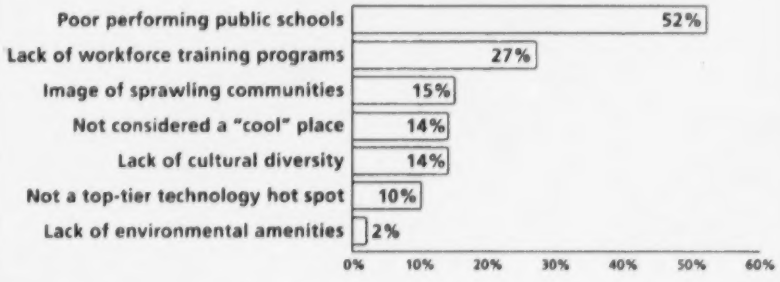
Governments and Businesses Face Big Talent Shake Ups

Employer	% Workers Under Age 35	% Workers Over Age 50
City of Phoenix	25%	27%
Pima County	21%	33%
Phoenix Union High School District	23%	34%
State of Arizona	27%	34%
Registered Nurses	14%	42%
APS	7%	24%
Raytheon Missile Systems	18%	31%

Source: Morrison Institute for Public Policy, 2001

FIGURE 1

Employers Say Talented Prospective Workers Have Reservations About Locating in Arizona Because of...



Source: Morrison Institute for Public Policy, 2001

The future of most cities depends on their being desirable places for consumers to live. As consumers become richer and firms become mobile, location choices are based as much on their advantages for workers as on their advantages for firms.

Edward Glaeser
Harvard University

FIGURE 2

Knowledge Workers* and Amenities Tend to Correlate

Regions in the upper right quadrant possess both knowledge workers and amenities. Regions in the lower left quadrant lack both.

* Computer service workers have been used as a proxy for all knowledge workers. Amenities include arts and culture and more youth-oriented amenities.

Source: *Competing in the Age of Talent*, 2000

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Increasingly Arizona's success will depend on how it reaches out to the best and the brightest in three demographic groups:

- *Yuppie baby boomers*, who, at the peak of their productivity, may be anticipating an "active retirement" with perhaps a different career, a new business or a return to school
- *Young knowledge workers*, who, in their 20s and 30s, want to do cutting-edge work in exciting places
- *Highly skilled immigrants*, who are choosing places with inclusive communities, fast-growing economies and numerous options

These constituencies loom large because talent matters so much now. In this knowledge economy, regions prosper by dint of their intellectual capabilities – their people. The places that can claim the hearts and minds of the people who dream up fresh ideas and devise new processes will prevail over those that cannot or do not. As Harvard economist Edward Glaeser writes: "Skilled communities rise – unskilled communities fall."

Talent, however, is increasingly mobile, so a high-stakes scramble for it is in full swing. Well-educated, creative people – whether they are foreign-born, 50-something or 20-something – move around a lot. Such people's activities are rooted in a global economic system characterized by rapid migrations of capital and people; their cosmopolitan sensibilities and many employment options make them peripatetic pickers and choosers among locations.

Of course, all of Arizona's talent is valuable in today's environment. Still, attracting additional brains and hands is crucial because Arizona's homegrown talent pool is not deep or broad enough for new economy success. Morrison Institute's recent statewide survey of Arizona employers confirmed the importance and challenge of attracting talent. More than half (52%) of the firms who recruit workers out of state rated poor schools, as well as other perceived quality of life deficits, as "major barriers" to attracting quality employees.

Baby Boomers: Will They Work or Play, Come or Stay Away?

The baby boom generation begins to turn 55 this year. Since one in four Arizonans is a boomer, the 55 milestone presages a potential "brain drain" in Arizona workplaces. As the best-educated, best-off generation in American history, baby boomers anchor Arizona's workforce and provide the bulk of its talent. Especially critical are the best-educated professional boomers. They may no longer be as youthful as they were when their status prompted the term "yuppies," but they are still the most valuable workers. Regions and communities that retain and attract the mobile, "demographically advantaged" segments of the baby boom will tap into a large pool of workers, entrepreneurs and civic participants. Regions that lack them, conversely, could struggle.

Arizona and the Baby Boom Generation

Two trends raise questions about Arizona's standing with the baby boom generation:

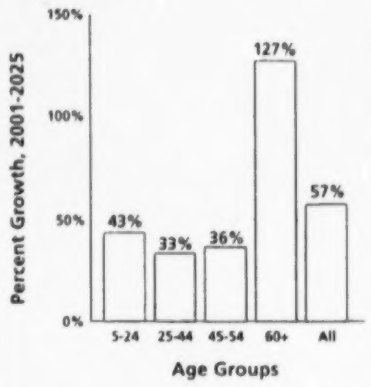
1. In-state boomers' aging and retirement could create shortages of skilled workers.

The inevitable aging of the state's resident boomers prompts concern because more and more of Arizona's most experienced workers are hitting retirement age. Between now and 2030 the proportion and real size of the over-60 population will grow from 17 percent of the population (about 900,000 people) to 27 percent (about 2.7 million) according to Arizona Department of Economic Security projections.

Predictions abound about baby boomers' preferences for the future, but no one really knows whether boomers will continue the current trend toward earlier retirement or stay in the workforce longer. What is certain is that those who are aged 39 to 55 today account for about 1.5 million of Arizona's 2.7 million working-age residents, or 56 percent of them. Seniority alone implies that this half of the state's workforce comprises the core of managers, supervisors and lead workers. But now, these critical producers are entering the traditional downshifting years. In just 10 years, 500,000 Arizonans will turn 60. In the next 20 years Arizona businesses and organizations will face replacing hundreds of thousands of employees at the top of their games from the smaller "baby bust" that followed the boom.

FIGURE 3

In 20 Years, Young Workers Will Be Few in Comparison to Older Employees and Retirees



Source: Arizona Department of Economic Security

Already, Arizona employers are watching their workforces grow older as they struggle with the worker scarcities created by the 1990s economic boom. In health care, the average age of the registered nurses now hovers at 48. In education, a third of Phoenix Union High School District employees are 50 or older. Among governments, 65 percent of Pima County's employees, 70 percent of the city of Phoenix's and 61 percent of state workers are over 40. Big private-sector employers are not much younger. Half of Raytheon Missile Systems' employees are 45 or older. At APS boomers make up 70 percent of the workforce; half the workers there are 45.

Staffing will only get harder. For a while "late wave" boomers will move up to fill more senior positions. In 20 years, though, the challenge will toughen. Then, the smaller size of the younger cohorts now early in their work lives hints at a shortage of experienced workers. Arizona's population is projected to increase by 57 percent by 2025, but the pool from which the state draws its top employees, those aged 45 to 54, will increase a comparatively modest 36 percent

(see Figure 3). Thus, a substantially bigger Arizona economy could include proportionally fewer veteran workers to run it.

2. The changing tastes of out-of-state "empty nesters" and high-end retirees could leave Arizona out of the game of attracting them.

The second issue that raises concerns about Arizona's ability to attract and retain the most desirable cohorts of aging boomers involves the increasing sophistication of those groups. The reality is that the most desirable boomers may choose to go elsewhere just when Arizona needs them most.

Arizona has profited from the wealth and spending of the 15,000 to 20,000 retirees it attracts from other states each year. To be sure, accommodating these migrants has demanded a lot of Arizona. But their arrival has brought an influx of financially secure, active and educated new citizens to the state. Only Florida has welcomed more of this "advantaged" segment than has Arizona.

Yet now the process of attracting talented retirees and well-heeled migrants may be changing. Migrants represent a new talent source for states, for one thing. At the same time, "yuppie" seniors appear to be different from their predecessors. Better-educated and increasingly affluent (see Figure 4), aging boomers are also healthier, choosier and less group-oriented in comparison to previous generations. Amenities, aesthetics and the environment count for a lot with them, since economic security is not an issue. Boomers are sophisticated consumers of "place" and appear ill disposed to spend their twenty "new" years of added lifespan according to old patterns.

Given that, fewer boomers may settle for Arizona's traditional menu of retirement options (see Table 3). Some retirees, even now, are being turned off by the congestion, pollution and loss of open space affecting Arizona's retirement communities. Others might avoid metro Phoenix's worsening "heat island," which has increased summer nighttime low temperatures by 10 degrees F in the last 30 years. Other boomers may spurn senior-only settings altogether. Demographers William Frey and Ross DeVol of the Milken Institute foresee diminished demand for mass-market, age-segregated retirement communities like Sun City. Frey and DeVol, along with other experts, suspect some empty nesters will be looking for more centrally located multi-age developments in high-amenity communities, perhaps so they can easily continue working. In all this, local amenities and quality of life will be critical selection factors. Restaurants and theaters, architectural and landscape aesthetics and efficient transportation are key draws for these discerning consumers.

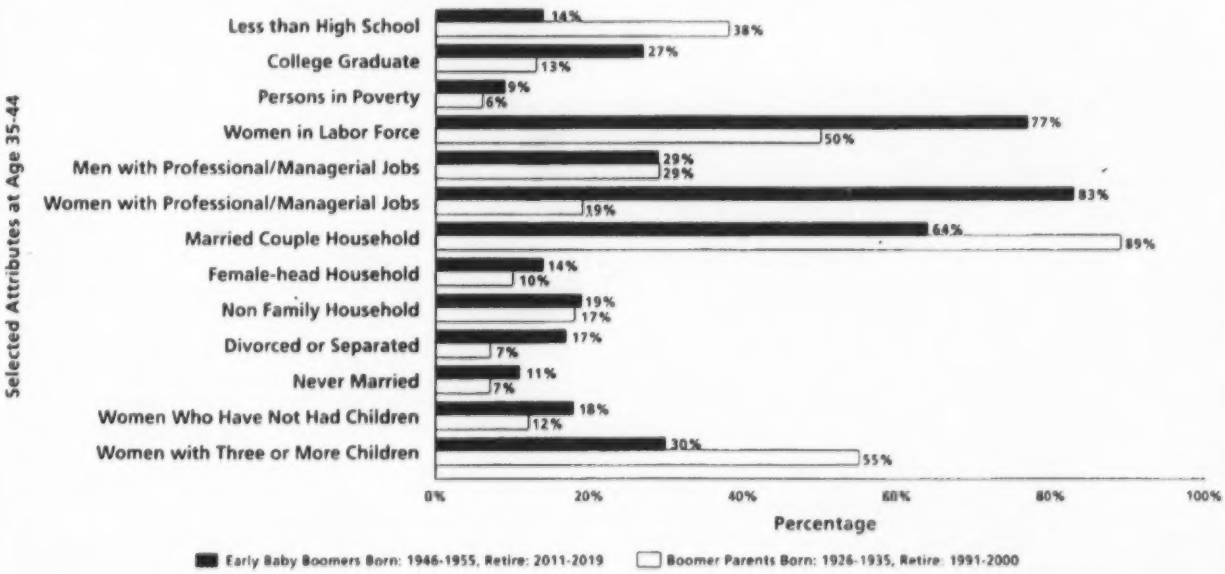
A final draw will be opportunities for self-improvement and engagement. Quintessentially the "education generation" and fond of work, boomers seem certain to seek places that facilitate lifelong learning and ongoing employment. Regions that cater to these passions will garner vital new stores of human capital.

Arizona Lags in Young Talent for a New Economy

Highly educated young professional, technical and creative workers are also critical. Unfortunately, Arizona now has fewer of the

FIGURE 4

Boomers are More Educated and Professional Than Their Parents and Have Had Different Life Experiences



Sources: Milken Institute, U.S. Census Bureau

prized, young knowledge workers than it should have, and the state lags behind on the assets, amenities and reputation that might attract them. The problem is twofold: Arizona ranks only moderately well on measures of current workforce skill, and it fares poorly on the sort of factors that young knowledge workers say affect their location decisions.

In terms of present talent levels, Arizona cannot claim to have the critical mass of knowledge workers that numerous commentators deem critical to economic success. Granted, the state scores rather well on several measures of human competency. For example, Arizona ranked 12th among the 50 states on the Progressive Policy Institute's most recent measure of overall workforce education. This ranking, however, stems from the educational achievement of adults (25-65 years old), many of whom have moved to Arizona, rather than from young homegrown talent ages 20-24.

Indicators of Talent Problems

As Table 2 shows, Arizona ranks 37th among the 50 states on the percentage of the population with a bachelor's degree. Just 22.5 percent of Arizona's over-25 population boasted a bachelor's degree or more in 2000 – an average education level. More disturbing, however, is the fact that Arizona's standing deteriorated from 20th among the states in 1991 to 37th in 2000. Nor does a tighter focus on high tech improve the picture. Civilian scientists and engineers make up just .35 percent of the state's workforce, compared to a national incidence of .43 percent, according to the Progressive Policy Institute. Similarly, Arizona's per capita employment in high-tech, knowledge-intensive industrial sectors ranks slightly below the national average. Arizona has 50 workers per 1,000 residents working in knowledge-intensive sectors, compared to 207 in top-ranked Washington, D.C. and 64 in Colorado.

But those numbers refer to who is here now. What may matter more to Arizona (or to any of the state's regions) is the ability to add to the present talent base by attracting well-educated 20-somethings and 30-somethings from other parts of the country.

TABLE 2

Arizona's Ranking Among the 50 States Dropped from 20th in 1991 to 37th in 2000 for Residents with a Bachelor's Degree

Estimated Percent of Population Over 25 Years of Age Attaining a Bachelor's Degree or More By State: 1991 & 2000

2000 Rank	1991 Rank	Percent Change Rank	State	Estimated Percent of Population with Bachelor's Degree or More (2000)	Estimated Percent of Population with Bachelor's Degree or More (1991)	Percent Change
44	46	6	Alabama	20.2	15.4	31.2
18	12	43	Alaska	26.0	24.5	6.1
37	20	49	**ARIZONA**	22.5	22.5	0.0
50	50	15	Arkansas	16.6	13.7	21.2
13	13	30	California	27.5	24.2	13.6
3	2	46	Colorado	33.4	32.2	3.7
4	4	24	Connecticut	33.3	28.4	17.3
19	33	2	Delaware	25.6	19.3	32.6
1	1	19	District of Columbia	41.1	34.4	19.5
28	32	18	Florida	23.4	19.5	20.0
29	27	38	Georgia	23.2	20.9	11.0
13	6	47	Hawaii	27.5	27.0	1.9
40	39	28	Idaho	21.1	18.4	14.7
15	14	34	Illinois	27.0	24.0	12.5
45	48	1	Indiana	19.9	14.7	35.4
38	43	10	Iowa	22.2	17.6	26.1
16	10	41	Kansas	26.9	25.0	7.6
49	47	26	Kentucky	17.2	14.8	16.2
46	36	44	Louisiana	19.5	18.6	4.8
35	31	27	Maine	22.8	19.7	15.7
5	11	9	Maryland	31.5	24.9	26.5
2	3	25	Massachusetts	34.9	29.8	17.1
31	44	4	Michigan	23.1	17.5	32.0
12	21	11	Minnesota	28.0	22.3	25.6
47	49	7	Mississippi	18.6	14.5	28.3
33	34	20	Missouri	22.9	19.2	19.3
19	28	14	Montana	25.6	20.5	24.9
23	19	40	Nebraska	25.1	22.7	10.6
48	41	49	Nevada	18.3	18.3	0.0
8	7	30	New Hampshire	30.0	26.4	13.6
6	8	22	New Jersey	31.1	26.2	18.7
24	24	33	New Mexico	24.5	21.6	13.4
11	16	16	New York	28.2	23.4	20.5
39	38	21	North Carolina	22.0	18.5	18.9
29	21	45	North Dakota	23.2	22.3	4.0
42	36	37	Ohio	20.7	18.6	11.3
43	30	48	Oklahoma	20.3	20.2	0.5
19	15	41	Oregon	25.6	23.8	7.6
32	39	13	Pennsylvania	23.0	18.4	25.0
22	18	35	Rhode Island	25.4	22.8	11.4
33	42	8	South Carolina	22.9	17.9	27.9
26	35	12	South Dakota	23.6	18.8	25.5
41	45	3	Tennessee	20.9	15.8	32.3
27	25	35	Texas	23.5	21.1	11.4
17	2	17	Utah	26.8	22.3	20.2
10	4	51	Vermont	28.3	28.4	-0.4
7	17	5	Virginia	30.2	23.0	31.3
9	9	32	Washington	29.5	26.0	13.5
51	51	23	West Virginia	14.1	11.9	18.5
36	28	39	Wisconsin	22.7	20.5	10.7
25	26	29	Wyoming	24.0	21.0	14.3
			U.S. Average	**25.1**	**21.4**	**17.3**

Sources: State Science & Technology Institute, www.census.gov

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Experts associate economic success with clusters of these frequently unattached young workers with the latest and greatest skills. At the same time, these valuable workers move far more frequently than less-educated individuals, and they often pick locations as much as, or more than, they choose jobs. Such mobility and adventurousness imply that these young itinerants could be recruited.

Arizona, however, faces problems on this front.

New economy observers Richard Florida, Terry Nichols Clark and Doug Henton have documented the preferences of these vanguard workers (see Table 4). Henton says the young itinerants gravitate to "vital centers" that provide opportunities to get together, vibrant street scenes and quick access to urban greenspace. Clark believes they flock to cities that are "entertainment machines" full of such things as parks, bohemian arts scenes, and dense neighborhoods filled with exotic cuisine and nightclubs. Richard Florida tallies interest in diversity; subways or light rail; places to see "visibly active young people;" and casual gathering places. Morrison Institute's recent survey of metropolitan Phoenix residents revealed similar currents. Respondents under age 30 were more likely than older ones to support promoting the state for its "great quality of life," its "smart people" and its arts scene. Such views highlight what appeals to the young here and elsewhere.

Arizona May Not Have What Young Workers Want

Yet other research suggests that Arizona does not yet offer what many of the nation's smart young workers say they want. The institute's employer survey showed that a third to a half of Arizona companies that recruit workers from out of state thought that recruits did not perceive Arizona as a "cool," vibrant place for young professionals. Fourteen percent of companies thought this a major barrier to attracting the types of workers they want and need.

Richard Florida has cross-referenced various cities' densities of knowledge workers with their amenity rankings in *Money Magazine*

TABLE 3

Advantaged Boomers Define the Good Life

	Ages 33 – 51
Defining Experiences	The Sixties and Watergate
Common Ideas	Achievement, quality, individuality, meaning
Outlook	Youthful, cosmopolitan
Ethic	Striving, seeking, adventuring
Habitat	Outlying planned communities, plus In-town established neighborhoods In-fill developments in areas of interest Small-scale, highly urban developments
Residence	Customized diversity Single-family luxury homes on the fringe "Convenient" suburban Townhouses, condos (implies density)
Amenities	Sun, dry climate, proximity to ocean Good schools if kids still at home Performing arts Open space/natural environment Efficient transportation
Lifestyle	Enlightened consumption Entertainment options
Recreation	Walking, hiking, biking, working out
Later Years	"Now I can do what I really want." Self-improvement Different work and volunteer experiences "Back to school at 60 – start a business at 70" Computer rooms, health spas, classrooms

Sources: *Rocking the Ages: The Yankelovich Report on Generational Marketing;* Meyers Real Estate Information Inc.; *Age Power;* "The Consumer City;" "The City as Entertainment Machine"

TABLE 4

Young Knowledge Workers Redefine the Good Life

	Ages 20s and 30s
Defining Ideas	Pluralism, tolerance, the Web
Outlooks	Precocious, entrepreneurial
Ethics	Adaptability, pragmatic
Habitats	Urban centers University areas Cyber-districts Revitalizing neighborhoods
Residences	"Industrial" loft spaces Eccentric urban apartments Convenient condos Rehabbed housing
Amenities	Compact density Meeting places Light rail or subways Vibrant night life Environmental quality
Lifestyle	Exotic consumption Alternative entertainment Independent theater and film
Recreation	Roller-blading, mountain biking

Sources: *Rocking the Ages: The Yankelovich Report on Generational Marketing;* "Competing in the Age of Talent;" "Linking the New Economy to the Livable Community;" "The City as Entertainment Machine"

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and *POV Magazine*. While not focused solely on those under 30, the analysis captures the sort of distinctions younger cohorts make so sharply. In general high technology success correlates with high amenity value in this analysis. Without exception Phoenix ranks low on measures of "overall environmental quality," "overall amenities," "arts and culture" and "coolness".

The upshot: The region's low amenity ratings represent a critical human resources problem. Arizona does not yet have what it takes to win in the scramble for young professionals – a scramble that is growing urgent.

Immigrants: Potential Sources of Skills and Strength

Arizona, finally, is fortunate to be a gateway state for new residents from other countries. Numerous studies associate economic strength with the readiness to "harness diversity," welcome newcomers and turn their energy and ideas into innovations and wealth. One expert goes so far as to correlate high-tech industry with the percentage of a region's population that is foreign born.

The issue for Arizona, though, is that while foreign-born residents bring benefits, the state's newcomers come with a wide array of educational experiences. Arizona's current immigrant population tilts to the low end of the education spectrum. Specifically, the vast majority of Arizona's foreign-born immigrants arrive from Mexico, where they commonly receive no more than nine years of education. Approximately four percent of Mexican newcomers possess advanced university degrees. By contrast, large flows of Asian and Indian immigrants, with far higher rates of college attendance and with approximately 20 percent having advanced degrees, give a potent talent edge to California.

The Immigrant Advantage

Witness the human capital advantage enjoyed by Silicon Valley, thanks to its highly educated, highly entrepreneurial immigrants. Nearly a quarter of the population there is foreign-born; and almost one-third of Silicon Valley's scientists and engineers hail from foreign countries. Even more strikingly, roughly a quarter of new Silicon Valley businesses started since 1980 have been started by someone who was born in China or India. The figure increased to more than 30 percent between 1995 and 1999.

Such immigrant-driven entrepreneurship highlights a potential boon from Arizona's growing diversity, but also underscores continuing deficits. Census 2000 shows Arizona's Hispanic population surged 88 percent since 1990, and that its Asian population grew by 67 percent. Nevertheless, Arizona's mix of people and skills remains less than optimal. Latino education levels are comparatively low while fewer than 100,000 Asians (2% of the population) reside in the state. For now, at least, California still dominates the contest for high-skill immigrants among Western states.

And So the Shoe Could Drop

The implication is clear. If it is unable to prevail in the race to woo footloose talent as the boomers retire, Arizona could see its recent new economy progress stall. Put it this way: Arizona's second-tier ability to augment its workforce with skilled immigrants, experienced boomers and young creative types throws into question the quantity and quality of its talent base. In terms of quantity, the purely numerical difficulty of replacing the state's retiring boomers from among the ranks of the smaller baby bust alone foretells problems. Absent the recruitment of new talent from elsewhere, shortages of skilled labor seem likely. But the quality of the state's workforce also hangs in the balance, since every community's prospects turn in part on luring the world's best-educated, most creative and mobile people. By that formula, Denver, Seattle, and Portland will continue to rise and greater Phoenix and Tucson could falter.

Cause for Optimism

But those are the fears. For all this Arizona seems well enough positioned that if it moved with dispatch it could still help itself in the talent race. In this regard, the state's recent population growth across all age and racial groups points to general strengths in attracting each of the future's three desirable groups.

In general terms, Arizona is growing quickly and that brings talent. According to Census 2000, Arizona added 1.5 million new residents in the last decade, more than all but four states. Likewise, five of the nation's fifteen fastest growing cities with populations more than 100,000 are in Arizona. By contrast, other states and their cities are increasing slowly, or shrinking. That places Arizona emphatically among the states that are gaining raw human capital.

Indeed, Arizona offers several of the attributes that Edward Glaeser's analyses for the Brookings Institution associate with fast growth (though it lacks high percentages of highly educated residents). Most notably, Arizona lies in the warm, dry West; its economy provides easy access to services and work; and it attracts many immigrants. These are important strengths in the search for human capital.

But as Arizona looks to the next phase of the scramble for talent stubborn uncertainties intrude. Arizona clearly lacks the compact, walkable, heavily "amenitized" urban centers that increasingly appeal to highly educated residents. Arizona also faces a serious environmental hurdle in selling itself to choosy migrants as the heat island effect makes notoriously hot Phoenix hotter. Yet even here, Arizona possesses important edges in the talent battles. Arizona's Sun Belt setting and proximity to California, for example, remain powerful assets. Meanwhile, most of the state's deficits can be fixed relatively easily. Policy makers retain substantial power to boost the state's appeal to desirable groups by creating more vibrant, people-friendly urban scenes. Leaders can address the state's education lags, and work to keep its older populations engaged. Should they do so, decision makers may well find that Arizona's current demography is not destiny.

Policies to Win in the Scramble for Talent

Turning the scramble for talent into a human resource bonanza depends on providing attractive places for all people to call home.

To succeed at this, Arizona must:

Put ambitious, Arizona-style quality of life upgrades near the center of state and regional economic development efforts.

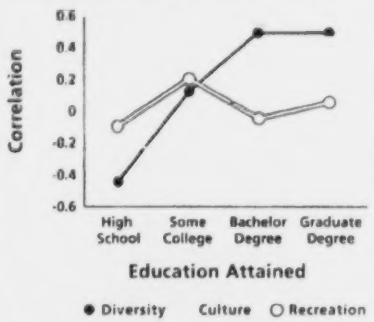
Policy makers should notice that several themes run through the expressed preferences of the three major talent cohorts. Cities seem to draw all of the groups. Good schools attract knowledge workers with young families just as much as they do upwardly mobile Latino career people. Interest in people-friendly streetscapes, inclusiveness and gathering places seems to cut across the categories. Opportunities for lifelong learning and retraining will also appeal widely to all three constituencies of strivers.

Research also suggests the convergence of boomers' and young professionals' preferences on other quality-of-place agendas, though data is thin on immigrants. Both groups are full of "doers" who appreciate numerous venues for active recreation throughout the city and region, including bike paths, nature preserves and mountain-bike trails. Similarly, culture and the environment appear to be critical. Environmental, open space and smart growth initiatives impress both well-educated groups, as do performing arts venues. Conveniently, such agendas popular with highly educated potential Arizonans enjoy broad popular support within the state as well (see Figure 5).

With these trends in mind, very different choices for economic policy emerge. A decade ago, cities and states studied what individual companies wanted and competed for them with "private goods," or customized tax breaks and other incentives to lower costs. Now with a knowledge and service-centered economy, the new choice is to compete for talent groups with "public goods" – amenities such as clean air, interesting public spaces and good schools.

FIGURE 5

The Relationship Between Amenities and Knowledge Workers



Source: Collaborative Economics, 2001

Understanding the desires for amenities is, of course, far more complex than deciding on tax breaks. Nevertheless, Seattle, Portland, Austin and Chicago and other cities are engaged in amenity strategies that appear to be paying off.

Seattle, Portland and Austin have become centers for the development of information technology in part because of their lifestyle amenities. Both cities have set the pace in implementing smart growth strategies, and in their recent dramatic growth. Both have aggressively included cultural initiatives in their public agendas. Seattle, home to Microsoft, has been a site of cultural as well as technological innovations, especially in youth culture. Austin, with its country music, also fostered rich connections between its youth culture and its technology sector.

Chicago, which recently took Boeing's headquarters from Seattle, appears to be concentrating on lifestyle also. Chicago's main industry today, according to University of Chicago economist Terry Clark, is entertainment, defined as including tourism, conventions, restaurants, hotels, and related amenities. Conscious of this new role for the city, Mayor Richard Daley has focused on enhancing the many aspects of a distinctive urban lifestyle from architecture to schools and parks. For example, he proudly claims to have planted more trees than any other mayor in history, around one million, as part of a commitment to the environment and city aesthetics. He also asked the Legislature for authority to take over the Chicago Public Schools and the Parks District. Both moves were part of Daley's agenda "to do all those things which make a city a livable and pleasant place."

Daley is one of several big-city mayors who in the past decade focused on public amenities, including education, as central to urban economic development. Others include Richard Riordan in Los Angeles, Rudolph Guiliani in New York, Ed Rendell in Philadelphia and Stephen Goldsmith in Indianapolis.

Prepare for the talent crunch.

Arizona policy makers need to develop a nuanced understanding of the age and migration trends that are rapidly altering the size and character of labor markets, and begin improving Arizona's public and private institutions' standing in the talent competition.

Businesses and agencies concerned with the economy, for example, should look closely at the labor supply implications of the boomers' aging. They may find organizations face greater staffing challenges than they thought. Governments should be even more urgent about replenishing a dwindling talent pool. Paul Light of the

Brookings Institution warns that government's problem in competing for talent is twofold. "First, its hiring system for recruiting talent, top to bottom, falls short at almost every task it undertakes. It is slow in hiring, useless in firing...out of touch with actual performance rewards, penurious in training...Second, government appears less and less able to provide the kind of work that today's labor market expects. There is no question, for example, that young Americans are more highly attached to work than previous generations or that the most talented among them can demand more from their employers." Light also writes that "if governments do not want to be the employer of last resort, they must become the recruiters of first approach. They can derive little comfort from having hundreds of names on their application lists if those names come from the bottom quarter of classes or are drawn to government for the security."

Ease the coming skills crunch by keeping boomers engaged through initiatives to promote "productive aging," "rehiring" and retraining.

A final way to increase Arizona's talent stock is to ensure that fewer of its mainstay workers disengage from productivity. Arizona should therefore make itself a national leader in developing a new vision of "productive aging" aimed at engaging older citizens in meaningful work, lifelong learning and volunteerism.

In the workplace, Arizona businesses and governments must become far more adept at attracting, retraining and retaining top-flight older workers. Instead of nudging older workers toward retirement, employers should be retooling their workplaces to provide the flexible schedules, phased retirements and skill updates that will help keep aging boomers in the workforce.

In like fashion, Arizona must become an education mecca where "lifelong learning" extends richly into the later years. This too will unleash local talent and attract migrating boomers.

More and more older Arizonans may also want to give back to society in the next two decades. Their energies could flood Arizona neighborhoods, schools, parks and community organizations with desperately needed human resources. In light of that, Arizona institutions must find ways to capitalize on boomers' availability. Organizations with traditional needs for help must determine what will interest a new brand of volunteer, whether a voucher for a free class or flexible scheduling. Meanwhile, new avenues for civic engagement should be opened. Neighborhood groups might emulate Big Brothers/Big Sisters branches around the country, which are now recruiting older mentors. Corporations could develop phased retirement options that give employees the opportunity to try out options for a new career. And Arizona governments might help unlock boomer energy. Florida and South Carolina, for example, have facilitated the relicensing of retired physicians to encourage their service in free clinics for the uninsured. On a grander scale, Arizona might adapt author Marc Freedman's proposal for a national "Third Age Bill" designed to guide millions of aging Americans into new roles strengthening communities through volunteerism. Such creative approaches to aging would set Arizona apart as a destination for highly educated older workers.

In the end, Arizona leaders need to think far more strategically than they have about what prized groups want in a place and then work to provide it. In the knowledge economy, what the talented desire must be served.

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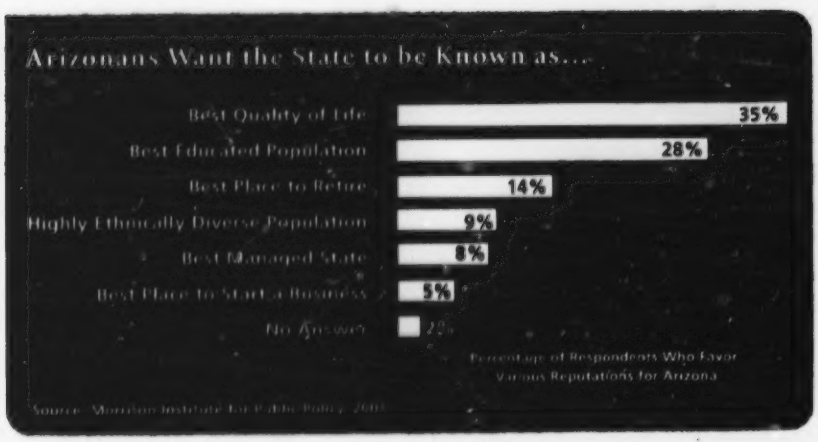


Latino Education Dilemma

Latino youth are upwardly mobile already. But they need better education for Arizona to take full advantage of the possibilities this exploding population offers.

Arizona's fast-growing, layered Latino[1] population offers the state tremendous promise – and a challenge. Even more than the aging of the baby boomers, the fast growth of Arizona's Latino population is altering the state dramatically. Immigration and natural increase have added 600,000 young Latino residents to the state's population in the last decade. Half of the population under 18 in both Phoenix and Tucson is now Latino. Within 20 years, Latinos will make up half of the homegrown entry-level labor pool in the state's two most important labor market areas.

At a time when many states are suffering labor shortages because of modest population growth, this is a great opportunity to build a foundation for future prosperity in the state. Not only are Latinos growing in population, they are also upwardly mobile – when they get a good education. Most people don't notice it, but Latinos born in Arizona already make up much of their parents' economic and educational deficits in a single generation.

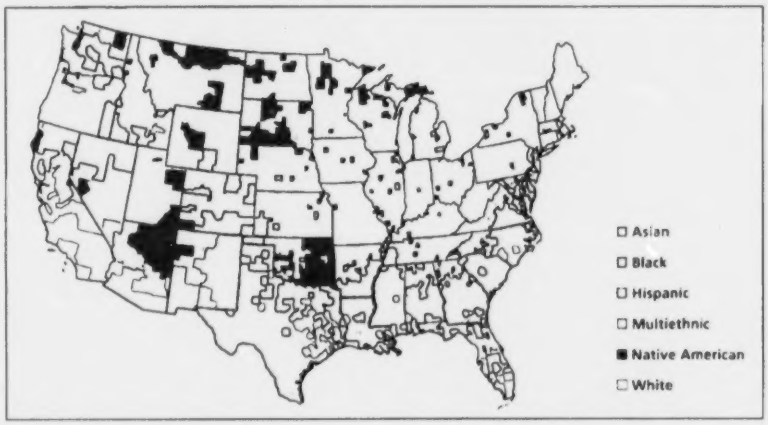
Unfortunately, Arizona and its Latinos may not be able to seize their opportunity. Far too many of Arizona's Latinos drop out of high school or fail to obtain the sound basic education needed for more advanced study. As a result, educational deficits are holding back many Latinos – and the state as well – as the economy rushes forward. To be sure, construction and low-end service jobs continue to absorb tens of thousands of immigrants with little formal education. But over the long-term many of Arizona's Latino citizens remain ill prepared to prosper in an intellectually demanding knowledge economy. And that means the state's higher-end jobs could go begging.

The educational uplift of Arizona's huge Latino population, therefore, must move to the center of the state's agenda. Arizona's future prosperity depends heavily on making high quality early education ubiquitous in Latino neighborhoods, launching an urgent urban schools initiative and improving the "pipeline" that moves Latino students from high school into higher education, particularly in technical fields.

[1] *The words Latino and Hispanic are used synonymously in this publication.*

MAP 1

Fast-Growing Hispanic Populations Give Arizona and the Sun Belt Demographic Advantages

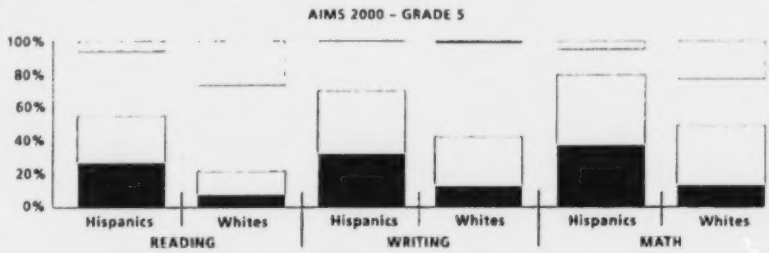


How to Read This Map:
Nationwide, Blacks account for 12.6% of the total population. In areas shaded grey they account for more than 12.6% of that region's population. Similarly, Hispanics comprise 12.5% of the country's total. In areas shaded red they make up more than 12.5% of the region. Asians account for 5% of all Americans. In areas shaded green their numbers exceed the national average. Native Americans make up 5% of the country's total. Sections shaded brown have a Native American population greater than that. In areas shaded blue there are concentrations of two or more minority groups. Finally, white sections may have minority representation, but no one ethnic group exceeds its national percentage.

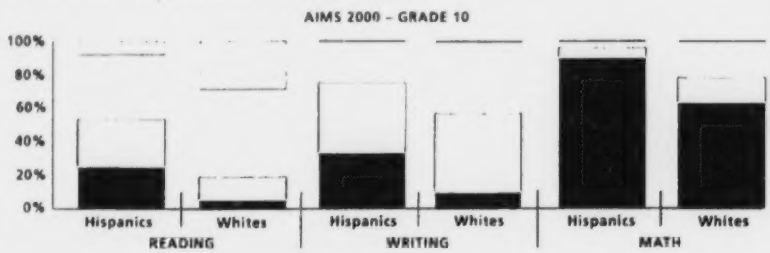
Source: Steve Doig, Arizona State University. Based on map by William H. Frey for *American Demographics*, June 2001. Used by Permission.

FIGURE 2

Too Few Latino Students Meet Arizona's Standards of Academic Achievement



By 10th Grade, Latino Students Have Fallen Even Further Behind Their Peers



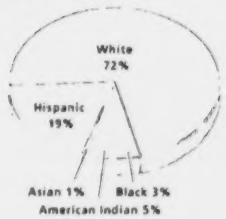
■ Falls Far Below the Standard ☐ Approaches the Standard Meets the Standard Exceeds the Standard

Source: Arizona Department of Education

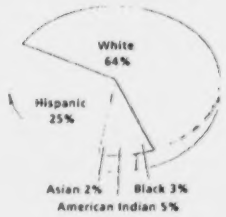
FIGURE 1

Arizona is Becoming Far More Hispanic*...Fast

1990 Population Breakdown by Race and Ethnicity (Total 3,665,228)

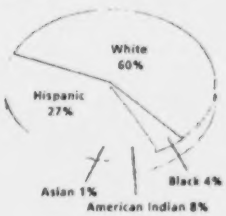


2000 Population Breakdown by Race and Ethnicity (Total 5,130,632)

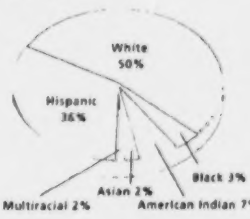


The Young are Even More Often Hispanic

1990 Population Breakdown Under 18 Years by Race and Ethnicity (Total 978,783)



2000 Population Breakdown Under 18 Years by Race and Ethnicity (Total 1,366,947)



* Totals may add up to more than 100% because Census 2000 permitted individuals to report more than one race.

Source: Census 2000

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Hispanics now represent 25 percent of all Arizonans and 36 percent of those under 18 years of age. Large-scale migration – superimposed on a sizable native Hispanic population – is creating a significantly more Latino state. Other minority groups' populations have also grown significantly in recent years. The focus here is on Latinos because of their large share of the population, but the concerns, ideas and recommendations that follow apply equally well to, and are equally important for, any group concerned with economic status and success in the new economy.

"Latinization," meanwhile, is affecting all of Arizona, although its impacts are felt more keenly in some places than in others. To be sure, the broad trends are dramatic. Between 1990 and 2000, Arizona's Hispanic population grew 88 percent, triple the figure for white growth. Yet the statewide picture obscures local variations in recent Latino growth and the fact that Hispanics are clustering in the state's most urban areas (see Map 2). The city of Phoenix, for example, absorbed more than 40 percent of the state's Latino growth. Latinos now make up 39 percent of Phoenix's population, with much of the growth concentrated in central and south Phoenix neighborhoods.

Another trend is Latinos' youthfulness. In 2000, nearly 40 percent of the state's Latino youth consisted of those who were under age 18 at decade's end. In Phoenix and Tucson Latino children accounted for more than 85% of the 10-year growth of the under-18 population. Hispanics now account for half of the K-12 population in the two cities.

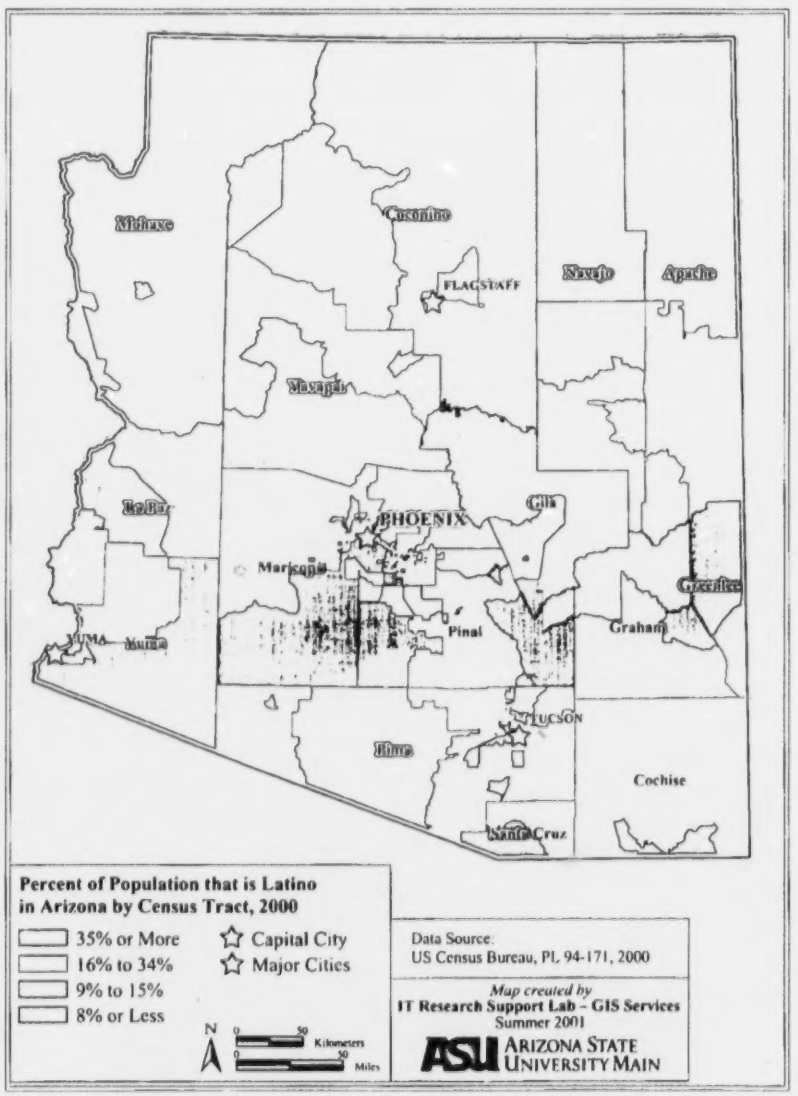
Such youthfulness has implications for Arizona's schools and workforce. Within 10 years in the state's biggest cities, the number of Latino high school graduates will equal the number of white graduates. Within 20 years Hispanics will make up approximately half of the homegrown, entry-level labor pool in the state's largest economies. Today's young Latinos will be entering their prime working years just when experienced employees will be needed to help replace the baby boomers.

The Education Fault Line

Too many Latinos, however, fail to acquire the education, training and mentoring needed to succeed in a skills-based economy. Barely half of Arizona Hispanics, for example, obtain a high school education. In part, this reflects that half of Mexican Hispanics are foreign-born, and that the typical Mexican immigrant has completed less than nine years of education, a figure that depresses aggregate statistics and obscures the greater achievements of U.S.-born Mexican Americans. The deficit also stems from an annual high school dropout rate for Hispanic students that, at over 15 percent, doubles the figure for white students, according to the Arizona Department of Education. Either way, just 52 percent of Hispanics in the West possess a high school education. That compares with an 85 percent diploma rate for whites.

MAP 2

Arizona's Latino Population Clusters in the South (and in Cities)



Nor is the achievement of the Hispanic students who stay in school adequate.

- In 1998 just eight percent of Arizona Hispanic fourth-grade students were "proficient" readers, according to the National Assessment of Education Progress (NAEP).
- In 1996 Hispanics' eighth-grade science and math NAEP scores lagged the white national average by 36 and 30 points respectively.
- In 2000 88 percent of Hispanic 10th graders fell "far below the standard" for math proficiency set by the Arizona Instrument to Measure Standards (AIMS).
- In 2000 just six Arizona Latinos took the advanced placement (AP) computer science examination, and Latinos remain underrepresented in all AP courses.

Hispanic participation in higher education is also a concern. Eight percent of Hispanics over 25 in the West have completed four years of college, compared to 31 percent of whites, according to the U.S. Census Bureau. In Arizona, Latinos earned 1,835 bachelor's degrees from state universities in 2000, just 12 percent of those awarded, though Latinos represented 25 percent of the state's population. Such figures are one reason just over 20 percent of Arizona residents 25 years and older possess a bachelor's degree – a figure significantly below the 25.2 percent regional average.

Among Hispanics who do graduate, moreover, few have chosen science, technology and engineering (STE) fields. In those areas, Arizona Latinos are significantly underrepresented, obtaining 221, or nine percent, of the state's STE bachelor's degrees in 2000. Just four Arizona Hispanics received Ph.D.s in science or engineering in that year.

Such outcomes challenge the state with serious skill deficits just when success requires more intellectual resources. Given this reality, Arizona and a substantial portion of its citizens face the future from a position of disadvantage.

Education is good for state revenue: In Arizona, 31% of white 25 to 65-year-olds hold a bachelor's degree, compared to 12% for all other races. This year, if all ethnic groups in Arizona had the same educational attainment and earnings as whites, total personal income in the state would be $5.9 billion higher, and the state would realize an estimated $2.1 billion in additional tax revenues.

Measuring Up 2000: The State-by-State Report Card for Higher Education

Low Wages and Few Opportunities

The consequences of the state's failure to make appropriate educational investments in its minority communities are visible already. Too frequently, Arizona's often foreign-born Hispanics remain stuck in low-paying, low-skill jobs. Current Population Survey data from 1999 confirm that Mexican American men are nearly twice as likely to be employed as laborers, machine operators or low-skill fabricators as are non-Hispanic whites (31 percent versus 17 percent respectively). Conversely, just eight percent of Mexican American men worked in professional or managerial positions compared to 32 percent of non-Hispanic white males. As a result, Latino income levels in Arizona significantly trail those of non-Hispanic white workers. In 1999 Mexican Americans earned hourly wages that were 40 percent lower than those of non-Hispanic white men. Recent immigrants earned 52 percent less.

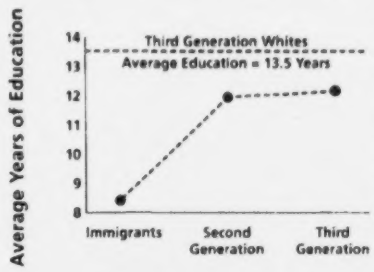
The Latino Promise: Benefits of Being a State of Immigrants

There is another side to the story though. Latinos and other minority groups represent a tremendous opportunity for Arizona that other states do not have. Hispanics supplied Arizona's need for entry-level labor during the recent hot growth years, easing a labor shortage that could have slowed growth. In addition, Hispanics guarantee the state an ample labor pool for decades just when many other regions lack young workers. Mexican Americans, moreover, offer special assets, including a slightly higher rate of participation in the labor force than the rest of the population (67 percent to 66 percent). In short, these new and future workers – mostly from immigrant families – bring a welcome energy that adds to the state's dynamism. They often come from families that have taken risks for better jobs and futures.

At the same time, the upward mobility of many Hispanics shows that their lack of preparation can be overcome. Many Latinos, especially the U.S.-born, are making substantial progress in education and work. U.S.-born Latinos – including the sons and daughters of recent immigrants to Arizona – close much of the education gap. Second-generation Mexican Americans, for example, manage an average of 12 grades of education. That means they erase 70 percent of their parents' lag behind third generation whites' roughly 14 years of schooling (see Figure 3). Similarly, the numbers of Mexican Americans in professional and managerial occupations jump from four percent and six percent, respectively, for immigrant men and women, to 13 percent and 17 percent for second-generation Latinos. Such progress underscores the potential for upgrading skills rapidly.

FIGURE 3

U.S.-Born Mexican Americans Narrow the Education Gap



Sources: Tomas Rivera Policy Institute, U.S. Census Bureau Current Population Survey, 1999

Latino economic progress has been impressive also. By 1998, 41 percent of U.S.-born Mexican-headed households were "middle-class," defined as an annual income above $40,000. More broadly, Latinos who attained comparable schooling to whites achieved comparable or superior economic outcomes. The incomes of college-educated, U.S.-born Mexican American men rose 42 percent between 1979 and 1998, for example, when collegiate white men's earnings rose just 14 percent. During the same period, second-generation, college-educated Mexican American women's hourly wages exceeded those earned by white women.

Hispanics are, meanwhile, assembling significant economic clout in Arizona. Nationally, just under half of immigrant Mexican Americans own their homes. By the second generation almost 60 percent do. In Arizona, Hispanics now control about 12 percent of the state's total buying power, a $13 billion share. Similarly, in 1997 nearly nine percent of all Arizona businesses were Hispanic owned and generated more than $4.2 billion in sales. Such figures almost certainly underestimate Latino business activity in the state, since the figures predate the more detailed data by Census 2000.

Ultimately, then, the prospects are mixed. Arizona's Latinos are making vital contributions to the state's economy and offer the state a tremendous human resource for the future, if the state can make good on its promises of equal opportunity and appropriate assistance. Already Hispanic strengths are undeniable, and, with effective educations, many immigrants' children will emerge as upwardly mobile, educated workers to help replace the retiring boomers.

At the same time, though, no one can deny that turning the state's Latinos into a top-flight workforce represents a stern challenge – because the numbers are large and Arizona's history includes some perceptions and actions of which no one can be proud.

And So the Shoe Could Drop

Unaddressed, the unmet education needs of Arizona's Latino population could cramp their prospects and undercut the state's ability to prosper in an increasingly demanding economy. Currently, Arizona companies can hire skilled workers from a talent pool enriched by the in-migration of relatively well-educated workers from other states and leave others to fill unskilled jobs. But the retirement of the baby boomers combined with Latino deficits points toward difficulties. At the entry level, slower growth rates may create more competition for low-skill jobs, displacing Latinos. At the higher end, shortages of Latinos ready to move up will make it that much harder for companies to staff high-skill positions. The bottom line: Latinos' low education levels could leave the state with too many low-end laborers and too few skilled ones. Skills deficits could stunt Arizona companies' growth, and relegate many Latinos and their families to a life of low pay and little prospect of advancement.

The high-tech sector is a case in point. Technology workers here and elsewhere at present remain overwhelmingly white and largely male. Yet after 2010 the white male segment of the STE workforce will shrink in absolute as well as relative size, as retirements begin and the white share of the nation's population declines from 74 percent in 1995 to 52 percent. That suggests white males are not likely to provide the high-tech workers needed here or elsewhere. Meanwhile, estimates by the National Science and Technology Council project a nine percent decline nationwide between 1995 and 2050 in the percentage of 22-year-olds earning STE bachelor's degrees qualifying them to enter the technology workforce. Associated in part with low Hispanic attainment of these degrees, this projected decline in the rate of production of technology workers confronts Arizona with two scenarios. If Arizona's tech companies lose out in the scramble for talent, they will be forced to scale back or relocate to places with more skilled workers. Conversely, if such firms succeed at attracting out-of-state talent to fill jobs unfilled by Hispanics and others, Arizona's largest ethnic group may be excluded from the state's best jobs.

Arizona invests almost nothing in financial aid for low-income students and families.

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Policies to Keep the Shoe from Dropping

What should Arizona do to capitalize on its Latino and other talent?

Educate, educate, educate!

Arizona's future, and the well-being of its largest minority group, hinges largely on the quality of the K-12 education Latino youngsters receive and on increasing the number of Latinos who participate in higher education. Yet recent court rulings, as well as test scores and past experiences, indicate the state has failed to face that fact. This summer, for example, a federal court set a 2002 deadline for action after the Legislature failed to address a January 2000 ruling that the state was discriminating against students with limited English skills by scrimping on dollars for language instruction. Such delays cannot continue. Arizona leaders need to place the educational interests of Latino young people at the top of the state's agenda.

Doing so, moreover, will require reinventing the education system that currently fails many Latinos. Today, most Arizona school districts still operate on an industrial-era model designed for a homogeneous clientele. Uniform funding formulas, standard curricula and rigid approaches continue to prevail. Yet such rigidity can only be a formula for failure given the state's growing diversity.

What is needed is a far more dynamic responsiveness to the needs of the Hispanic school population and other specific groups. High standards for all students must be complemented by the freedom to customize educational activities to address various local needs, clienteles and learning styles such as those found in big-city Latino neighborhoods. Extra resources, likewise, should go to areas of greatest need. Experimentation to find what works and support to implement the best practices must replace rigid notions about how to teach. Banning bilingual education, for example, serves no purpose because it eliminates a viable teaching option. In addition, Latino students with substantial needs should benefit from extra funds for creative curricula, "safety net" programs and family assistance. Charter schools and tools of choice (such as vouchers) hold promise for Latino students because of the inadequate performance of traditional schools and the willingness of alternative schools to find the techniques that will best serve the students.

Four interventions appear important for Latino students.

1. Make high-quality early childhood programs universal and implement them first in Latino neighborhoods.

Arizona has long needed to commit to early childhood education, and it would especially benefit Latino and other minority students. Numerous studies show that every year of delayed entry into American education significantly reduces an immigrant child's subsequent achievement. Therefore, a top priority for unleashing Latino talent is to improve Latino children's access to quality preschool programs. Universal Head Start, for example, makes sense, which is why Georgia, Oklahoma, New York and Connecticut are moving in that direction. So does complementing Head Start or full-day kindergarten in Latino neighborhoods with tutoring and English literacy programs.

Helping schools to provide classrooms for preschool and full-day kindergarten also will be a vital step. One way to do that is to adjust the state funding formula for school space to reflect preschool and full-day kindergarten students' need for classrooms. Currently a kindergartner only counts as half a student in the funding of school space, and preschoolers, including those in Head Start, do not count at all. This discourages schools from offering or housing these vital early programs.

Another way to improve the prospects for young Latino students and others is to provide intense, individualized attention at the onset of grade school. Here, the Reading Recovery program suggests a model. Reading Recovery, which now serves more than a million first-graders nationally, uses a short-term intervention of one-to-one tutoring designed exclusively for low-achieving first-graders. Individual students receive a half-hour lesson each school day for 12 to 20 weeks from a specially trained Reading Recovery teacher. As soon as students can read within the average range of their class, their lessons are discontinued, and new students begin. And it seems to work: Numerous evaluations conclude that 82 percent of students who complete the full series of lessons can read and write within the average range of performance of their class. Follow-up studies indicate most Reading Recovery students also do well on standardized tests and maintain their gains in later years. Although Reading Recovery costs about $4,000 a student, a 1997 report to the Massachusetts Superintendent's Task Force on Special Education showed that $3 invested in Reading Recovery saved $5 in other costs.

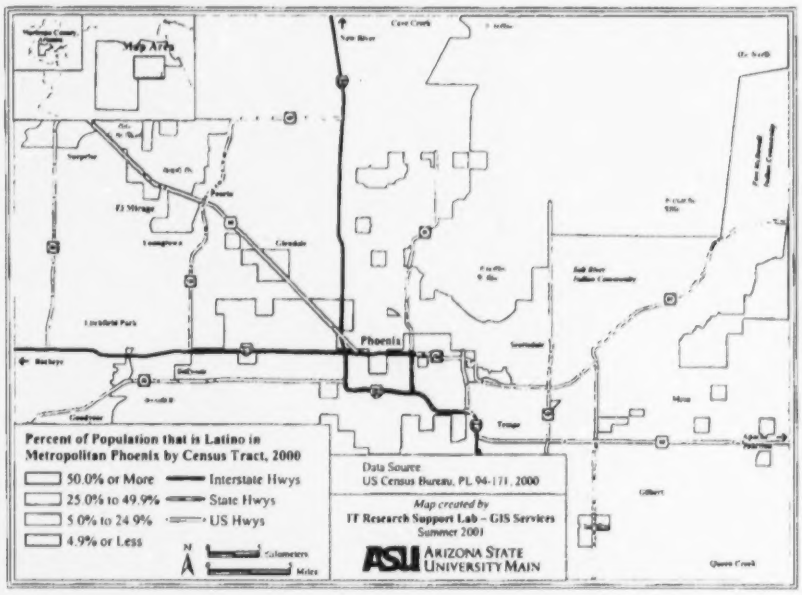
2. Recognize that one-size-fits-all funding and curricula formulas are not doing the job. Launch an urban schools initiative to ensure that every Latino student obtains the K-12 education he or she needs to succeed in the new economy.

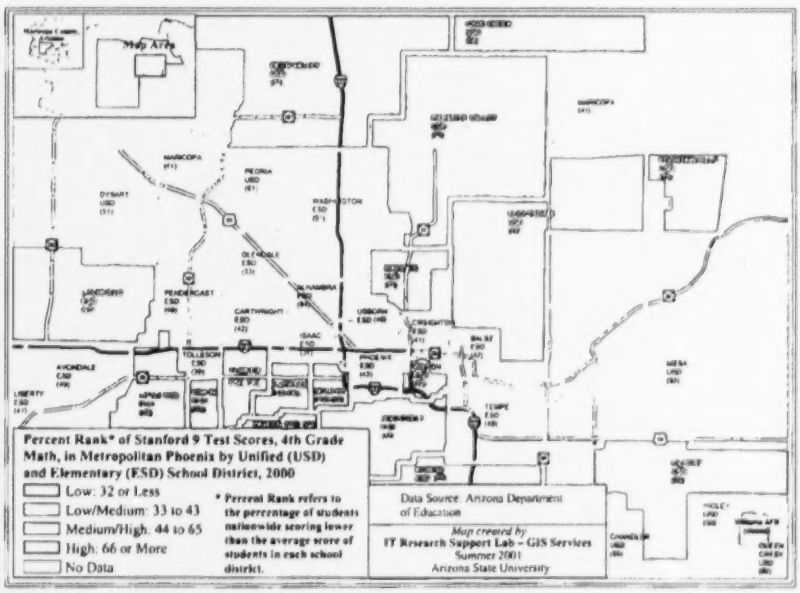
Upgrading the skills of Arizona's Hispanics depends on imparting a sound academic foundation, particularly in math and science, to every Hispanic youth. To that end the state, cities and businesses should mount aggressive inner-city education initiatives to invest *extra* effort in raising achievement levels in the struggling K-12 schools of the state's urban cores. The neediest kids live in central cities, and urban schools with many Latino students face exceptional challenges. For these schools, one-size-fits-all funding and curriculum formulas are not sufficient, (see Map 3) given the poverty and limited English proficiency with which their immigrant students often contend. Accordingly, Arizonans should move to focus more money and innovation on places where the needs are greatest, whether it be through existing school districts, charter schools, voucher initiatives or new structures.

As to the directions of such reform, the National Science Foundation's Urban Systemic Initiative (USI) program offers some guidance for Arizona. As noted in the new report *Academic Excellence for all Urban Students*, impressive achievement gains in science and math among inner-city students are emerging from a combination of a rigorous curriculum with careful assessment, professional development for teachers and investments in such activities as tutorial programs, Saturday Academies, algebra study labs and summer enrichment programs in science and technology. Graduation rates have increased in USI schools, despite tougher requirements. USI, in which a number of Phoenix schools participate, may well offer a model for helping all Arizona students to learn and achieve more.

MAP 3

Many Latino Students in the State's Urban Cores Face Exceptional Challenges – Central Phoenix Provides a Dramatic Example




Map Area
Percent Rank* of Stanford 9 Test Scores, 4th Grade Math, in Metropolitan Phoenix by Unified (USD) and Elementary (ESD) School District, 2000
Low: 32 or Less
Low/Medium: 33 to 43
Medium/High: 44 to 65
High: 66 or More
No Data
* Percent Rank refers to the percentage of students nationwide scoring lower than the average score of students in each school district.
Data Source: Arizona Department of Education
Map created by
IT Research Support Lab – GIS Services
Summer 2001
Arizona State University

3. Improve the "pipeline" that moves Latino students from high school into higher education, particularly in technical fields.

Arizona also must improve the rates at which Latino students enter universities or community colleges, and the technical fields that are, and will be, so much in demand. Fortunately, numerous programs in Arizona and throughout the country offer models for helping minority students. Many of these efforts engage elementary students in thinking about and planning for college. Other programs build awareness of the

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rewards and prerequisites of technical careers among middle-school students, parents and guidance counselors. Others foster achievement in math and science in middle or high school through mentors, exposure to collegiate role models and support for participation in AP courses. Some of the good ideas include:

Development Fees for Literacy

Many cities and regions are aware that their problem is not a lack a workers, but too few who can fill the jobs the economy is creating. In urban areas, it has become good politics to provide "skills training" for immigrant groups even if the skills are pretty basic. For example, Boston Mayor Thomas Menino created an interesting way to pay for literacy programs. Development fees are being used to fund the city's literacy and English proficiency program. In Boston at least, immigration is being viewed as a workforce issue instead of a social service issue.

Nurturing Connections

Other programs seek to boost students' progress in higher education by providing webs of support. The Meyerhoff Scholarship Program at the University of Maryland/ Baltimore County, for example, complements full science scholarships with summer "bridge" programs, group study, tutoring, mentoring and a close-knit community. In the Meyerhoff program individual achievement becomes a group accomplishment. A similar approach is now underway in Arizona, under the auspices of the newly formed Metro Phoenix ENLACE, or Engaging Latino Communities for Education. With a $1.5 million grant from the W.K. Kellogg Foundation and Houston Endowment Inc., Arizona State University expects to increase the number of Hispanics earning bachelor's degrees by 50 percent over the next four years by creating a strong support system for Latino youth. ENLACE will support achievement in higher education through college preparation and advising, mentoring, cross-age tutoring, parent and community outreach and linkages to high schools.

But Arizona also needs to consider bolder initiatives. Two examples illustrate the possibilities:

Guaranteed College Financial Aid

Washington state is removing the financial barriers that often impede minority and low-income students' progress beyond high school. In the last decade Washington has tripled to more than 50,000 the number of needy students to whom it provides Guaranteed Education Tuition (GET) grants for the state's public colleges and universities. Now, Washington is developing a program to reserve a GET "account" and tuition credits for every Washington kindergarten student. Additional credits will be deposited for students who pass fourth and seventh-grade assessment tests. Likewise, the accounts create a means for employers to contribute to employees' college savings, and encourage children to achieve in school.

California has another approach. Its "Cal Grant" program of need-based financial aid is expected to double over the next six years to $1.2 billion per year. Cal Grants is an entitlement program. Every student who meets income criteria and graduates with a 3.0 grade point average is eligible for full tuition and fee payments at the state's public colleges and universities and up to $9,708 to attend a private institution.

Rewards for More Graduates

Stanford University economist Paul Romer offers another approach. He wants the federal government to offer $1 billion in rewards, at perhaps $10,000 per person, to institutions that increase their output of undergraduate science majors. He also would offer 100,000 promising high school students $20,000-a-year fellowships contingent on their going on to graduate study in science. The numbers and targets of this approach would need adjustment for use at the state level. Still, Romer's idea has merit. It would create incentives to nudge both universities and students toward the desired outcomes. Targeted toward minority students and BAs in technical disciplines, a Romer incentive in Arizona would fill the skills pipeline.

Send a Signal of Welcome

Another gesture might be to emulate an announcement made by the University System of Georgia regarding "undocumented" students. Last September, Georgia's university leaders declared that "there is no impediment to the admission of any academically qualified student who attends or graduates from a high school in Georgia." Their purpose was to underscore that higher education has become a right for everyone and a necessity for the state to remain "viable and prosperous." Though officials anticipate minimal demand initially, the clarification has helped to dispel any doubt that young Latinos can, and should, go to college.

4. Press for a federal education initiative for border states.

Finally, Arizona's congressional delegation needs to take the lead in obtaining federal money to help defray the extra education costs associated with Arizona's (and other states') status as gateways for Latino immigration. Earlier this year Arizona Senator Jon Kyl introduced a bill in Congress asking for $200 million a year over the next four years to reimburse states for medical services provided to undocumented immigrants across the U.S. border region, on the theory that localities are bearing the costs of a federal immigration policy. Why not treat extra education costs in the same way? Education is just as important, and sizable, a cost to society as health care. With that in mind, Arizona's delegation should become Congress' top advocates for a cause whose time has come.

A Fuzzy Economic Identity

Arizona is growing high-tech jobs. But we haven't yet met the challenge of ensuring that we can excel in the new economy over the long term.

Our state's prosperity isn't based on sustainable high-tech job growth yet. Arizona has made progress in getting and keeping technology jobs. But the state's "economic miracle" is really based on other trends that may not be healthy for Arizona in the long run.

Arizona has for years posted stunning numbers in both population growth and job growth. But have we created the diversified high-tech infrastructure required for long-term success? You can keep increasing overall job growth by opening new retail stores, construction companies and high-technology manufacturing plants – as Arizona has done – but if you aren't also increasing job growth in advanced technology and advanced services, you won't really have a knowledge economy.

The state isn't strong in fast-growth technology sectors – and it has an image that may not fit the times. Currently, the state's technological realm is focused on just a handful of electronic and aerospace sectors. Economic expert Michael Crow of Columbia University recently warned that Arizona is not even among the top 30 locations making investments in the kinds of science-based high-tech sectors likely to produce rapid job growth in the future – sectors like biotechnology, nanotechnology and artificial intelligence. Crow advises that the Greater Phoenix region alone will not be able to build a diverse economy without at least $500-600 million (in 2001 dollars) per year in fundamental science expenditures, at least half of which must be on biological endeavors.

Furthermore, Arizona businesses report difficulty in selling Arizona to prospective employees because of its image. Arizona has a reputation for growth on the cheap – for being a place of poor schools, poorly planned communities and second-tier tech investment. That's a huge disadvantage in a world where economic success is determined more than ever before by a place's image.

Arizona must create a strong, clear economic identity. The state must define a clear set of goals that matches the high-potential opportunities of the future – one that depends not just on the traditional Arizona advantages of weather, scenery, and so forth, but also emphasizes investment in cutting-edge sectors and the development of a strong and educated labor force.

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FIGURE 1

How Does Arizona Measure Up in New Economy Science and Technology Assets?

Arizona is Barely Second Tier
Colorado is One State That is Excelling
Michigan Shows Advances are Rapid in the Rust Belt
Quintile
5th 4th 3rd 2nd 1st
Funding In-flows
R&D Expenditures/$1,000 of GSP
Industry R&D $/$1,000 of GSP
Federal R&D $/$1,000 of GSP
University R&D $/$1,000 of GSP
Federal Obligations for R&D/$1,000 of GSP
Funding-Fed Lab Campuses/$1,000 of GSP
SBIR Awards/10,000 Businesses
SBIR Award $/$1,000 of GSP
STTR Awards/10,000 Businesses
STTR Award $/$1,000 of GSP
Human Resources
NAEP Science Test Scores
% of Population Completing High School
% Associate's Degrees Granted /Pop 18-24
% Bachelor's Degrees Granted /Pop 18-24
% S&E Bachelor's Granted /Bach's Granted
% Grad Student (S&E)/Pop 18-24
% of Workforce with Recent Bachelor's Degree (S&E)
% of Workforce with Recent Master's Degree (S&E)
% of Workforce with Recent PhD (S&E)
Capital Investment & Business Assistance
Venture Capital Invested/$1,000 of GSP
SBIC Funds Disbursed/$1,000 of GSP
IPO Funds Raised/$1,000 of GSP
Business Incubators/10,000 Businesses
Patent Attorneys/10,000 Businesses
Technology Intensity of Business Base
% Establishments in Tech Intensive SICs
% Employment in Tech Intensive SICs
% Payroll in Tech Intensive SICs
% Business Births in Tech Intensive SICs
Net Tech Intensive Formations/10,000 Estab
Outcome Measures
Patents Issued /10,000 Businesses
Inc 500 Companies/10,000 Businesses
FAST Companies/10,000 Businesses
Average Annual Earnings/Job
% Population Above Federal Poverty Level
Per Capita Personal Income
Labor Force Participation Rate
% of Workforce Employed

Note: Long bars denote a high ranking and short bars a low ranking. See Sources and Notes for definitions of terms.

Sources: The Dynamics of Technology-Based Economic Development, State Science and Technology Indicators, Office of Technology Policy, Technology Administration, U.S. Department of Commerce, June 2000

As we enter the twenty-first century, Arizona has a solid foothold in the new economy – but the state is not well positioned to take advantage of the "next wave." Meanwhile, Arizona's deep, broad and longstanding economic sectors – tourism, golf, construction and retirement – are based on the state's traditional "old economy" assets such as climate and low costs.

Taken together, these realities set Arizona up for "blue collar" status in the new economy. The trajectory must be altered.

For Arizona to have a more prosperous future, the state must move beyond its low-wage, retirement-driven legacy and focus intensely on the new opportunities emerging in a rapidly evolving economy. *In other words, it is time for Arizona to move from being fortunate to being smart.*

The popular view – held by analysts across the ideological spectrum – is that even though it is not first-tier, Arizona is a solid location for high-tech companies. The Milken Institute ranks Arizona among second-tier high-tech states on both employment and output. Using a wider array of measures, the Progressive Policy Institute ranks Arizona 10th among the states in the new economy.

But these high rankings hide two big problems.

First, Arizona's high-tech strength rests on a narrow base. The state has developed technology clusters in only four of 14 sectors: electronic components, aircraft, space vehicles and navigational equipment.

Furthermore, as Figure 2 shows, Arizona does not have a competitive strength in software, plastics or bioscience – three areas in which Arizona has focused its strategy in the past 10 years. To excel in the twenty-first century Arizona needs to move its clusters further into the figure's upper right-hand quadrant.

Second, Arizona's technology growth is based mostly on manufacturing. In Arizona, we "make," much more than we "think" and thinking is where future economic growth is likely to occur. Intel, Raytheon and Motorola all have a strong manufacturing presence in the state and that is good. But the research and development activities of these firms typically are located outside Arizona and even beyond the Southwest according to the Milken Institute. We may keep the factories, but we don't have the facilities and workers that will decide what "the next big thing" is.

The Challenge of the Thinking Economy

As Seth Godin of *Fast Company* magazine writes, "The first 100 years of our country's history were about who could build the biggest, most efficient farm. The second 100 years were about the race to build efficient factories. The third 100 years are about ideas."

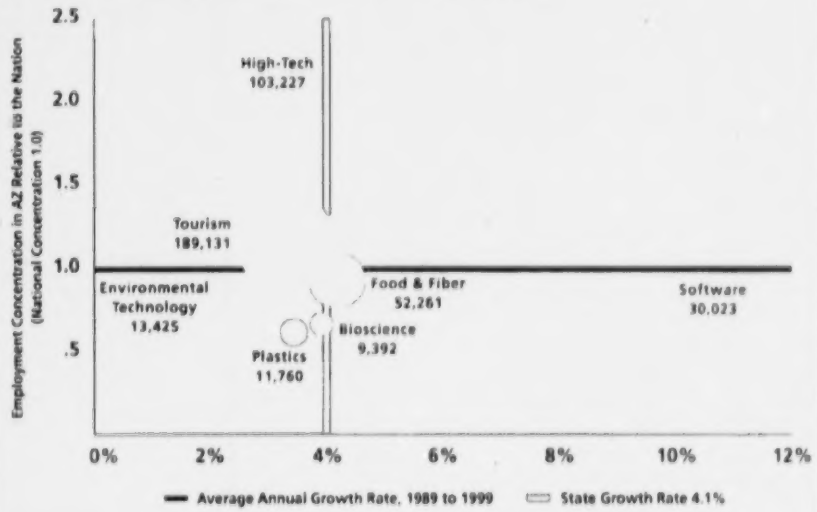
To succeed in the long run, Arizona must participate in the process of generating ideas and finding better ways of doing things, rather than simply executing economic tasks that are dreamed up by knowledge workers elsewhere. In the words of Columbia University's Michael Crow, Arizona must become a "knowledge producer" rather than a "knowledge importer."

Knowledge production is important not only in dreaming up new products and processes but also in upgrading products that already exist. It's true that a growing chunk of production in the modern economy comes in the form of intangibles based on the exploitation of ideas rather than material things. But at the same time, manufactured goods, from Mercedes to Nike, have "knowledge" embedded in them.

Thus, the twenty-first century economy will favor areas that are "knowledge producers," places flush with research and development activities, the creation of new intellectual products and services and the most recent technologies. Those areas strong in knowledge production will be the white-collar, front-office parts of the new economy. Areas

FIGURE 2

Key Arizona Industry Clusters* by Employment Size, Concentration and Growth, 1989-1999



A well-rounded portfolio of growing, concentrated industry clusters is a good indicator of competitive advantage. Figure 2 shows the concentration of employment in seven export-oriented clusters in Arizona. An employment concentration above 1.1 means that the state's share of jobs is higher than the national average and indicates a potential competitive strength for the state. In 1999 High Tech (electronics and aerospace manufacturing) was 2.3 times more concentrated in Arizona than in the nation with Tourism 1.4 times more concentrated. With concentrations of less than 1, bioscience, software, plastics and optics (not shown) are not yet areas of strength. To excel, cluster growth and concentration figures must move into the upper right-hand quadrant.

Note: Numbers below the cluster name indicate total employment.

* The Optics Cluster is not included because of incomparable data.

Source: Collaborative Economics

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dependent on knowledge imports – manufacturing and processing centers, like Arizona is today – will be stuck with the blue-collar, back-office parts of the new economy.

Given its lack of a high-tech base as recently as 50 years ago, Arizona has ridden the "electronics wave" of the emerging new economy pretty well. But to catch the next wave, the state must overcome its narrow high-tech base and its paucity of assets in science-based technology.

One only has to listen to the stem cell research debate today to surmise that science will be the undisputed primary driver of economic and cultural change in the twenty-first century. Harvard University scholar Juan Enriquez drives this point home in his new book, *As the Future Catches You: How Genomics and Other Forces are Changing Your Life, Work, Health and Wealth*. In a *Fast Company* magazine interview Enriquez discussed his outlook. He explains the next Cisco Systems, the next Microsoft, is going to be a life-sciences company. It could be a company today that calls itself a computer company. IBM's largest project is Blue Gene. Sun Microsystem's largest project is deciphering protein. Compaq Computer's driver is the alpha chips used for sequencing the human genome. So it may be a computer company, but it may be a cosmetics company like Procter & Gamble. Just as information technology isn't a business category or an industry – but a crosscut that changes every business and every industry – genomics is a crosscut.

One review of Enriquez's book concludes:

> *When the history of our time is written, the digital revolution will not be the lead story. The lead story will be the genomics revolution – a crosscut that really changes everything. And virtually no one knows anything about it.*

When asked to advise ASU's Greater Phoenix 2100 project, Michael Crow suggests it is reasonable to think that the next 100 years will include the following five general trends. Understanding these is critical to positioning Arizona for the future.

- Movement away from a silicon-based electronics economy
- Increased rates of technical advance and revolutionary breakthroughs on the smallest of scales (even molecular manipulation)
- The nanotechnology – the science of the extremely small – wave of technology integration and societal transformation (artificial cells, artificial enzymes)
- Convergence of diverse fields of study and development, such as information technology and biotechnology
- Genetically modified everything

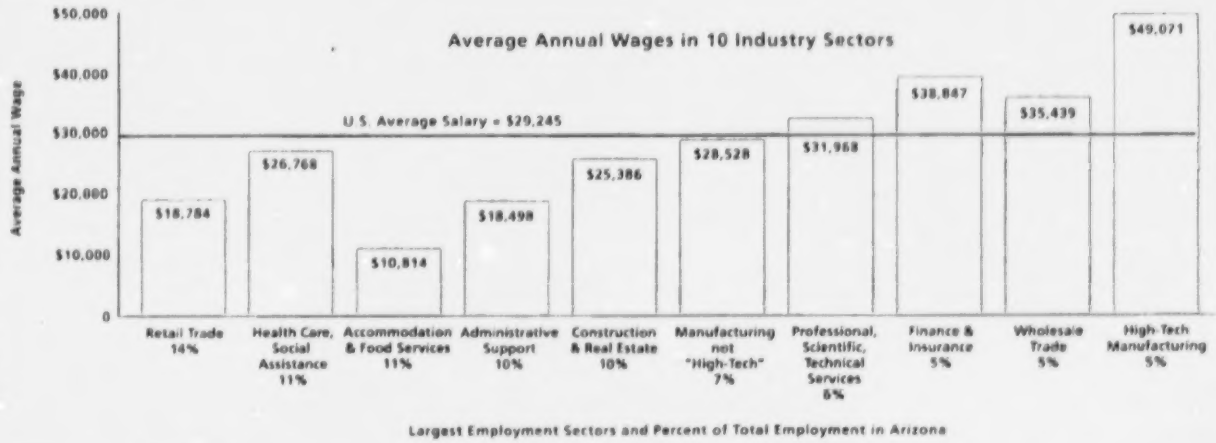
The other critical thing to understand, say Crow and Enriquez, is that if you want to compete in such areas as bioinformatics you need to compete for really smart people. You need really smart people who understand how to manipulate nanomolecules. Those really smart people want to live someplace where they're safe, where there are really smart people around, where there's financing and where there's a future.

Future Shock and *The Third Wave* authors, Alvin and Heidi Toffler, share Crow's and Enriquez's views. The Tofflers wrote in the *Wall Street Journal* on May 29, 2001:

> *It is now clear that the entire digital revolution is only the first phase of an even larger, longer process. If you think the revolution is over, get ready to be shocked again as information technology fully converges with and is, in turn, remade by, the biological revolution.*
>
> *In the first phase, information technology revolutionizes biology. In the next phase, biology will revolutionize information technology. And that will totally, once again, revolutionize economies. Together these represent a turning point not just in economies, but in human history.*
>
> *The upheaval in the stock market is extremely painful. But we will look back on it as a minor spike in the early history of the new economy of the 21st century.*

FIGURE 3

The Challenge of a Low-Wage Legacy in Arizona



Source: Center for Business Research, Arizona State University

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Given the move to science-based technology, an economy like Arizona's, whose technological realm is focused on manufacturing in just a handful of electronic and aerospace sectors, is in line for tremendous "pain and gain cycles," warns Crow.

The Challenge of a Low-Wage Legacy

Arizona always looks like an economic success because the state racks up impressive job growth numbers. Once again, however, this seemingly positive trend obscures a deeper, more worrisome concern: Most of these new jobs don't pay well because most of the new jobs aren't about thinking. They're about building and entertaining (see Figure 3).

What are the areas in which Arizona has a strong concentration of jobs? They're all in the backside of the economy: administrative support, construction services, travel and reservation services, telephone call centers, and collection agencies. Where are the jobs of the future? According to the Arizona Department of Economic Security, they're mostly at the lower end.

According to the state forecasts for 2008, half of the state's workforce will be employed in either tourism or retail at an average wage of about $12 per hour, or less than $25,000 per year. Of the 25 fastest-growing job types in the state, most require no higher education and pay, on average, less than $11 per hour. (One of the fastest-growing occupations in this group is telemarketers at 9 percent growth from 1998 to 2008.) Only one of the 25 requires more than a bachelor's degree (general managers and top executives), while two occupations require a bachelor's degree (elementary school teachers and paraprofessional and technical workers).

So it is not surprising that Arizona ranks below average in residents working in knowledge-intensive industries – those that are dependent on workers with at least a college degree. Consider that Arizona has 50 workers in knowledge-intensive sectors per 1,000 residents compared to 207 in top-ranked Washington, D.C. and 64 in Colorado (see Table 1). The state ranks 21st among the 50 states and the District of Columbia. Four New England states are among the top 10 and the Virginia/D.C./Maryland region is among the top 11. Three Western states are also among the top 10. California, sixth overall, is among the top 10 in high-tech manufacturing, information, and professional, scientific and technical services. Among the Western states, Utah and Oregon also have a higher overall per capita figure than Arizona. Utah is in the top 10 in information and education. Arizona ranks in the top 10 only in high-tech manufacturing.

The Challenge of a Split Personality

Arizona does not approach its economic future with a singleness of purpose. Many of its leaders want to compete with California, Texas or Colorado as centers of the knowledge economy. But just as many leaders are quite content to keep on promoting Arizona merely as the perpetual construction machine or a retirement haven. (See Figure 4.)

This split personality plays itself out in many ways. As a state, Arizona cannot quite make up its mind whether to be urban or rural, nostalgic or cutting edge. On the one hand, there's the "Old West" image, Grand Canyon, Sonoran desert, sunsets, and orange trees; on the other hand, there's the "built world" of

TABLE 1

Below Average Numbers of Arizonans Work in Knowledge-Intensive Sectors* of the Economy

Per capita Employment (number of workers per 1,000 residents)

Washington, D.C. has 207 workers in knowledge sectors for every 1,000 residents, while second-ranked Massachusetts has 94. With 50 per 1,000 residents, Arizona is not only not in the top ten, the state is below the national average.

Top 10 States, Arizona, and United States

Rank and Total per Capita		Technology Manufacturing		Information		PST**		Education Services		Health Services	
1. Washington, D.C.	207	1. New Hampshire	23	1. Washington, D.C.	14	1. Washington, D.C.	124	1. Washington, D.C.	57	1. Minnesota	16
2. Massachusetts	94	2. Washington	23	2. Colorado	11	2. Virginia	36	2. Massachusetts	18	2. Massachusetts	15
3. Connecticut	72	3. Connecticut	19	3. Massachusetts	11	3. Maryland	33	3. Vermont	13	3. Connecticut	15
4. New Hampshire	72	4. Vermont	19	4. Nebraska	10	4. Massachusetts	32	4. Rhode Island	12	4. New Hampshire	14
5. Washington	66	5. Massachusetts	18	5. Virginia	10	5. New Jersey	28	5. New Hampshire	11	5. Rhode Island	14
6. California	65	6. Kansas	18	6. New Jersey	9	6. Colorado	27	6. Pennsylvania	10	6. Wisconsin	14
7. Vermont	65	7. South Dakota	18	7. Georgia	8	7. California	27	7. New York	9	7. Washington	14
8. Virginia	65	8. California	15	8. Utah	8	8. New York	26	8. Connecticut	9	8. Florida	14
9. Colorado	64	9. Minnesota	14	9. California	8	9. Illinois	25	9. Utah	8	9. Vermont	14
10. Minnesota	63	10. Arizona	14	10. Missouri	7	10. Connecticut	23	10. Iowa	7	10. Pennsylvania	14
ARIZONA	**50**	**ARIZONA**	**14**	**ARIZONA**	**5**	**ARIZONA**	**19**	**ARIZONA**	**8**	**ARIZONA**	**11**
United States	**52**	**United States**	**8**	**United States**	**6**	**United States**	**22**	**United States**	**5**	**United States**	**12**

* Five sectors were analyzed because they are dependent on workers with at least a college degree. These included professional, scientific, and technical services (PST), most ambulatory health services, portions of the manufacturing sector, the information sector that depends on professional, technical talent, and parts of educational services (private sector higher education and computer training).

** PST – Professional, Scientific and Technical Services

Source: U.S. Department of Commerce, Bureau of the Census, 1998 County Business Patterns and Census 2000

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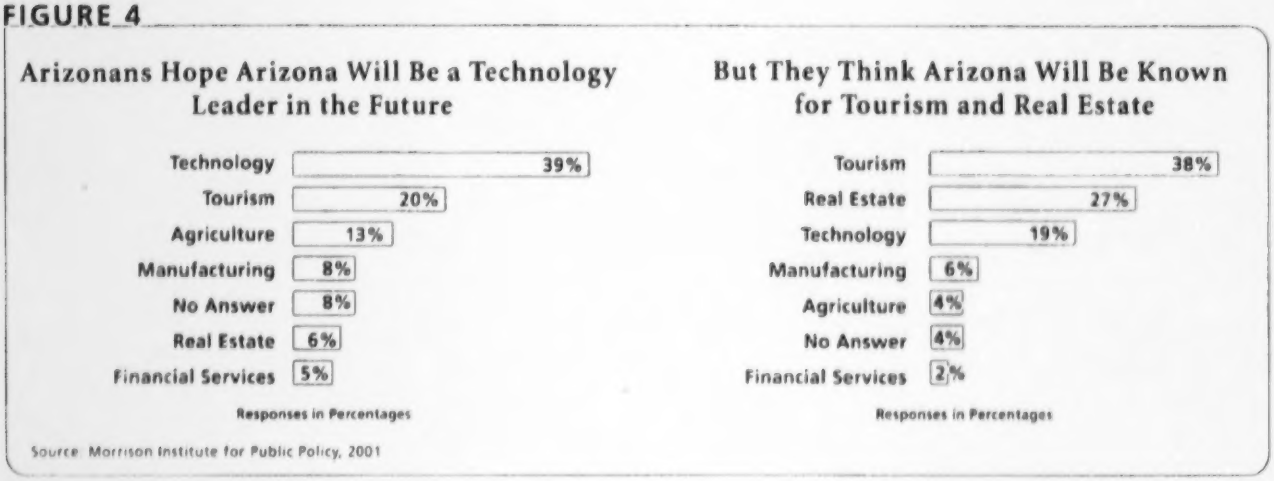
FIGURE 4



Lake Powell, America West Arena, red-tile roofs, world-class resorts, and Sun City. Residents recognize that population growth provides the market base for culture and sophisticated consumption, symphony, art galleries, restaurants, but don't want a state that forgets its setting and history.

This contradictory sense of self is expressed in the ways the cities in Phoenix metropolitan area represent themselves to the world. Several cities, like Scottsdale and Glendale, play to the past ("The West's Most Western Town" and "Arizona's Antique Capital," respectively), while Tempe, Chandler and others play to the future ("High-Tech Oasis"). The biggest city, Phoenix has chosen an identity tied to neither of these, but one that projects efficient government ("The Best Run City in the World"). Maricopa County appears to be following Phoenix's lead.

Does it matter that Arizona – and its largest region – are lacking a strong, distinct identity?

Yes, it does. Economic analyst Joel Kotkin, author of *The New Geography: How the Digital Revolution is Reshaping the American Landscape*, argues that the defining question of the twenty-first century is likely to be: "Who wants to live where?" He points out that "today, people and businesses can search the entire country to find the places most desirable to them. Freed from old ties to raw materials or pools of cheap labor, the Information Age businesses that drive the economy, and their employees, can be anywhere they want." In this context, Arizona's image is more important then ever.

In addition, a more strategic approach to the state's "economic identity" forces Arizona's leaders to answer two fundamental questions that are easy to overlook:

1. What is our most important asset?
2. Where do we want to go?

Answer these questions by creating an economic identity, says Harvard Business School's Michael Porter, and you can begin to think about how to make tradeoffs. You can decide which opportunities are good for your future and which are not.

The Challenge of Moving from Being Fortunate to Being Smart

In a lot of ways, Arizona is successful today because it has been lucky. Air conditioning, the shift toward the Sun Belt, the whole trend of retirement communities, even Motorola's decision to build a plant in Phoenix some 50 years ago: All these breakthroughs came about in large part through luck. But Arizona can't rely forever on being fortunate. It's time to be smart.

Maybe the best example for Arizona to learn from is Austin, another high-profile Sun Belt location that could have attempted to live off of its luck for a long time. When the Sun Belt boom began, Austin was a small but sophisticated town that had the good fortune to be located in a desirable state and to house both the state capital and a state university. Instead of simply riding that wave, the city established a "strategic principle" more than 20 years ago.

Local leaders adopted the mantra "Austin is poised for greatness." But they did more than that. They decided Austin would be great in two areas: information technologies and quality of life. From then on, the city leveraged its music scene and its independent film community, and it launched strategies to preserve open space and control growth. The city leveraged its university resources and the attraction of MCC and Sematech – two major research and development partnerships formed in the 1980s – to become a top-tier technology center. The three-year average annual growth rate in per capita income for Austin is 9.6 percent, just slightly below San Jose's 10 percent.

Of the 50 largest metropolitan areas in the nation, Austin was ranked recently as the second-best place for the knowledge economy. This overall ranking was earned by being one of the top three in technology and professional jobs, patents, science and engineering degrees, online population and access to venture capital.

But the same index rates Austin merely 12th on export performance, which is actually much higher than it would be without the presence of a few large exporters. Mayor Kirk Watson and a visionary group of local business, academic and city leaders are determined to make Greater Austin a world-class international region. They recognize that the knowledge economy is a global economy where strategic advantage and opportunities are often overseas. Lacking global experience, indigenous high-tech companies are more apt to react to global pressures than to be strategically aggressive.

To move forward, Arizona must focus on strategic goals. Now is the time to start thinking about the next Arizona economy and how we will prepare ourselves and our communities for what lies ahead. We need a dialogue about what comes next and how Arizona can create a future that works for everyone. The state's leaders must answer the question:

> *What are three things that Arizona – or its largest region – is striving to be great in?*

The Challenge of Global Geography

Whatever choice is made, the race to get there will be different from what it was 20 years ago or even five years ago. Nothing can be left to chance. As urban commentator William Fulton says, "when it comes to the new economy, no metropolitan area is without assets – and precious few have a monopoly on success." In addition, "global" is the new context and new scale. As in business, this new geography presents places with unparalleled opportunities and an endless supply of competitors. High-tech hubs now dot the globe, serving as outposts for big-brand corporations, generators of homegrown companies and incubators for emerging industries like e-commerce, mobile communications and biotechnology. In its July 2000 issue, *Wired* magazine showcased more international locales than U.S. regions on its list of the top 46 "locations that matter most in the new digital geography."

The message is clear: All economic hot spots are now competing in a global race.

Policies to Keep the Shoe from Dropping

Economic Identity: It matters and Greater Phoenix needs one that fits the times.

Metropolitan regions are overtaking states as the drivers of economic growth. Arizona is no exception. Metropolitan Phoenix currently accounts for 70 percent of the state's total personal income and is responsible for over 70 percent of new job growth. As goes Phoenix, so goes Arizona. The time has come to decide on the Phoenix region's economic identity and goals.

For Arizonans, it's hard to imagine Phoenix being "outclassed" in economic growth or quality of life. After all, its costs are still low and the sun still shines. Unfortunately, those two factors don't produce the standing they once did. Milken Institute economist Ross DeVol suggests

> *Phoenix represents the classic case of a 'middle-tier' tech region. Companies locate production and customer support facilities to take advantage of low costs and relatively cheap labor, but few place their top scientist and engineers there.*

Recent quality of life rankings by the Milken Institute and others show Greater Phoenix in the middle of 315 metropolitan areas with a ranking of 169, far below Denver and Salt Lake City. Still worse, Arizona businesses, especially high tech, report that existing and prospective employees are becoming disenchanted with Greater Phoenix.

The region "must look to make something more of itself if it wishes to be something other than an also-ran in the digital age," warns Joel Kotkin. Warnings from Kotkin, DeVol and other highly regarded researchers present the question: What does the Phoenix region want to be known for? What economic identity and lifestyle goals is it striving to achieve? Morrison Institute asked the region's residents those questions in a representative survey.

In June 2001 Morrison Institute surveyed metropolitan Phoenix residents to understand more about what matters to them and what image they would like the region to project to the rest of the world. Residents rated 12 potential images for the Phoenix area and then chose the one they liked most. Metropolitan residents are most likely to feel the Phoenix area should promote itself as a region characterized by its great quality of life and unique environment. Fewer than half felt that it was desirable to promote metropolitan Phoenix as a real estate boom town or an area of fast growth.

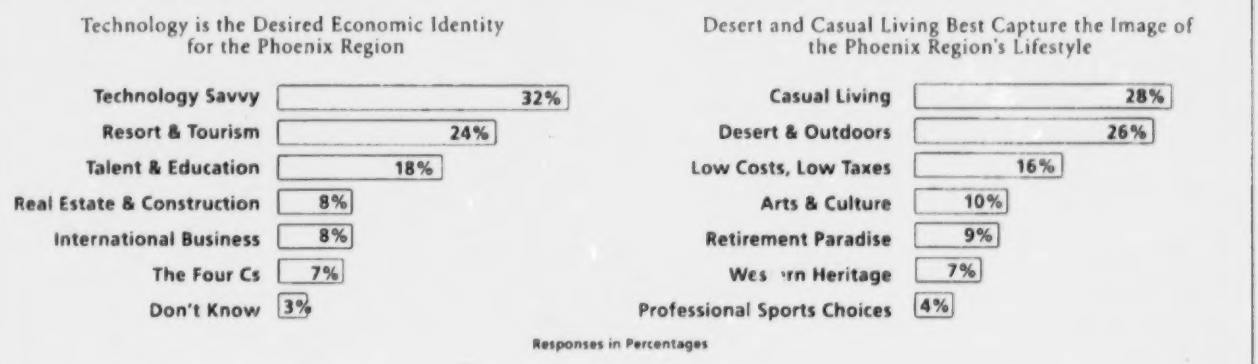
Valley residents were asked to pick one image they would most like for the Phoenix region on a scale of "0" to "10" with "10" meaning the Phoenix region should actively promote the image, and "0" meaning it should not promote the image at all. The average scores for each image from most favored to least favored are presented below.

1. Great quality of life..... 8.3
2. Sonoran Desert, mountain preserves and open spaces 8.1
3. Smart people and education opportunities..... 8.0
4. Technology leadership 7.7
5. Art and cultural entertainment . 7.6
6. Diverse ethnic and cultural heritages 7.5
7. Western heritage 7.2
8. Low taxes 7.0
9. Professional sports 6.8
10. Real estate booms..... 6.0
11. Fast growth..... 5.4
12. Conservative politics 5.5

Women tend to favor the desert environment and tolerance images, whereas men favor great quality of life and technology leadership. Support for promoting the region as a desert environment with open spaces and a great quality of life, or for technology leadership are favored more among those with higher incomes.

FIGURE 5

Residents Want Technology Savvy + Desert Lifestyle to Equal Greater Phoenix


Technology is the Desired Economic Identity for the Phoenix Region
Technology Savvy 32%
Resort & Tourism 24%
Talent & Education 18%
Real Estate & Construction 8%
International Business 8%
The Four Cs 7%
Don't Know 3%
Desert and Casual Living Best Capture the Image of the Phoenix Region's Lifestyle
Casual Living 28%
Desert & Outdoors 26%
Low Costs, Low Taxes 16%
Arts & Culture 10%
Retirement Paradise 9%
Western Heritage 7%
Professional Sports Choices 4%
Responses in Percentages

Source: Morrison Institute for Public Policy, 2001

Going further, the Morrison Institute survey asked residents to distinguish between an economic identity and a lifestyle identity for the region (see Figure 5). For an economic identity, a third of valley residents want the region to be viewed as technology savvy. Another one in five prefers the talent and education image. Taken together, a majority of residents appear to favor a "knowledge-based" or new economy image for metropolitan Phoenix. One in four residents prefers the more traditional resort and tourism image.

Survey respondents were split on their outlooks on lifestyles. Approximately one quarter of respondents selected a causal lifestyle image, and another one in four selected the desert environment and outdoors as the primary lifestyle image for the region. There was little interest in the images of professional sports, western heritage, or a retirement paradise.

With this concrete data as a starting point, the challenge now is to establish and maintain an image that distinguishes the Phoenix region – and thus Arizona – as a winner in the economic race of today, not yesterday.

Economic Identity is Only the First Step. Strategy is the Next and Harder One.

An economic identity will only transform an area if it is supported by wise decisions and initiatives by business and government. Assuming the state and its major regions establish a strategic principle something like – "the site of technology's future" – the focus and tools required to get there are different from those of the past.

Now economic, education, technology, amenity and community development strategies must go together. The battle for leading edge industries, knowledge assets, talented people and quality communities is one and the same. For example:

- World-class educational institutions build strong talent pools and provide community amenities
- Communities with respected education and research institutes and distinct cultural identities attract leading-edge industries
- Natural and cultural amenities draw talented people

These dynamics describe, of course, many of the factors driving high-tech and technology services location decisions. But just as important, these factors describe the places where today's breakthrough technologies and cutting edge organizations are born. They form a "virtuous circle."

But the idea of a virtuous circle is ushering in yet another change. It's no longer enough for states like Arizona to have top engineering schools, venture capital pools, job training programs and urban growth plans. States have to put the pieces together to create advantages from the parts' interaction. Advantage depends on capturing the synergies from the interaction of the critical parts.

Assets alone do not guarantee a place at the winner's table. The key is to connect them to create regional advantage. Many areas can accumulate an array of technology, education, and lifestyle assets. Map 1 shows the metro Phoenix assets. But it is much harder to create a place where the highest brain power resides, ideas flow freely among public and private institutions and businesses and people easily find the support they need to develop desirable companies. Setting this dynamic in motion and sustaining it requires genuine collaboration and significant investment. A short-term vision and yesterday's fragmented strategies won't do it.

Arizona will lead – or not – depending on its desire and discipline to:

- Build the technology and knowledge assets that will advance technology and launch high-value new ventures
- Develop and grab talent in every way possible
- Build desirable places to live and work

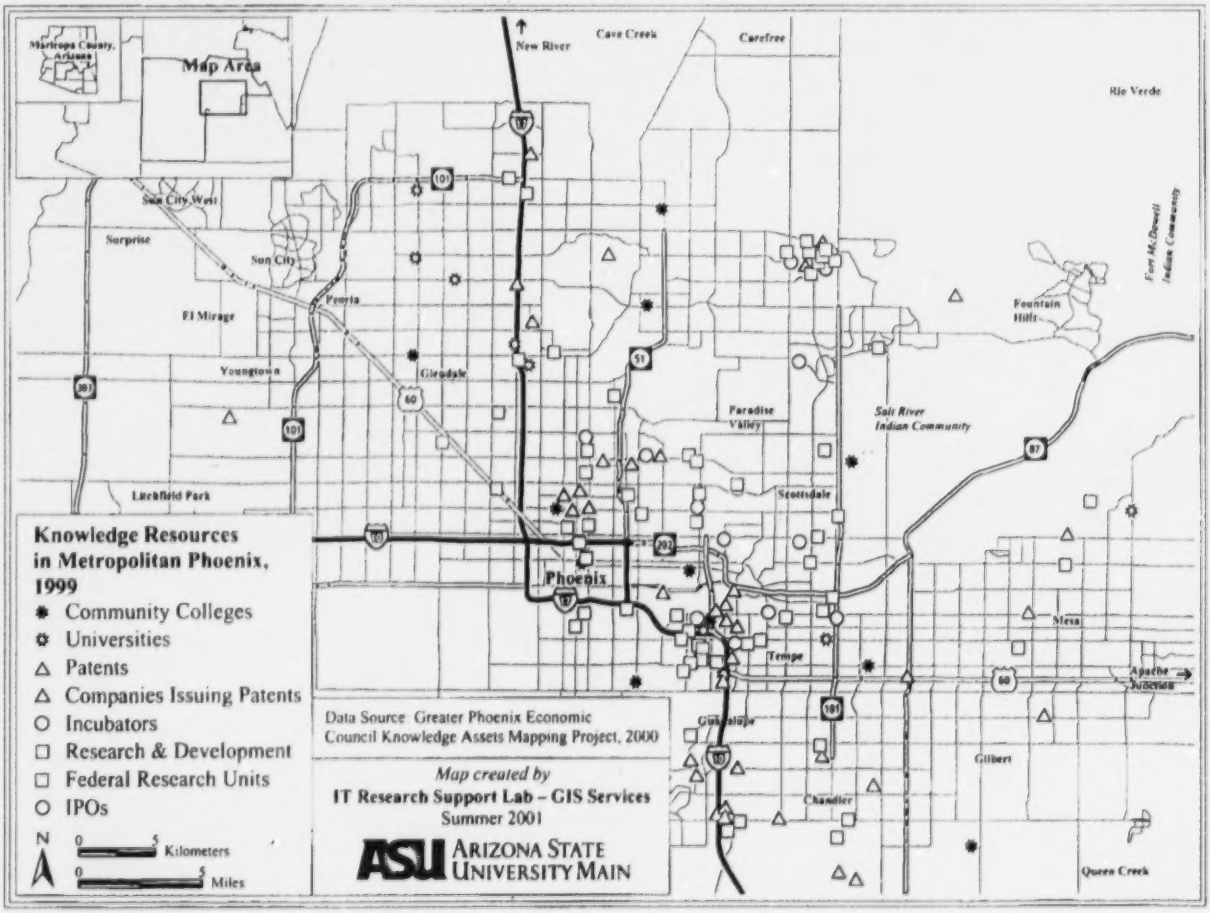
Start publicizing the right image and spend as much on promoting knowledge images as tourism.

Fortunately, Arizona is building its universities, R&D base and intellectual capital. In November 2000 state voters approved an increase in the state's sales tax to boost education funding by nearly $460 million a year for 20 years. The three state universities receive approximately 12 percent of the dollars annually for research and for infusing new knowledge into the economy. Arizona's universities have worked together to identify areas where they have foundations on which to build. Some of the areas are complementary, while others are unique to an institution. Together, however, these university specialties begin to map where the state has the potential to lead in the future. Arizona's universities are laying the groundwork to distinguish themselves nationally in the areas of bioscience and biotechnology and information science and technology. In addition, the universities are developing initiatives in manufacturing, environmental engineering, environmental science, water sustainability and optics.

Unfortunately, hardly anyone outside of Arizona knows about Proposition 301 and its potential to shape the state's future. Yet this major accomplishment could start to change the old perception of miserly Arizona when it comes to education and university research. The university portion of 301 totals $1.1 billion over 20 years, a figure on par with what the national press is touting as monumental investments. But Arizona cannot think its work is done. This is just one-tenth of the annual amount that Columbia University's Michael Crow suggests is necessary just for the Phoenix area. Moreover, even a cursory look at state initiatives shows that every other state – and many countries such as Israel and Ireland – are mastering the new rules of economic development. Many places have set their sights high and are taking risks to get there. The question is which ones will have the discipline to remain focused over the long haul. Will one of them be Arizona?

MAP 1

Arizona is Starting to Build a Critical Mass of Knowledge Assets in its Largest Region. The Question is: Does Arizona Have the Desire and Discipline to Turn Its Assets into Something Nobody Else Has?



Of course strategy is hard — it's about making tough choices. It's about deliberately choosing to be different.

If you want to make a difference as a leader, you've got to make time for strategy. The essence of strategy is choice and trade-offs and fit. Only strategy can create sustainable advantage.

Great leaders are able to enforce the trade-offs. A leader also has to make sure that everyone understands the strategy. They go out and they repeat, "This is what we stand for, this is what we stand for." So everyone understands it. Strategy becomes a cause. That's because strategy is about being different.

Wisdom about strategic positioning from one of the world's most known business school professors, Harvard University's Michael E. Porter. Although Porter is talking to businesses, his advice is equally solid for states and communities in the 21st century.

Harvard Business Review, March 2001

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Lost Stewardship

Leadership has become a spectator sport in Arizona.

Every flourishing place has people who act as its stewards. They are committed to and actively work for the long-term economic and social success of their locale – advocating for it, nurturing it, wanting to solve its problems and improve it.

But, most Arizonans, according to a statewide survey, think the state lacks such leadership today. What lies behind this view? Many citizens identify the states elected officials with narrow agendas. Other observers complain that CEOs are sitting on the sideline and that government-by-ballot measure has increased because business and elected officials remain passive.

Given the facts of corporate life today – national and international perspectives, merger mania, executive churning – finding and supporting stewards among business leaders is harder than ever. Meanwhile, many entrepreneurs appear to lack a civic involvement ethic, while political leaders seem to focus on re-election or narrow ideological issues.

"Stewards of place" seem like they are harder to find in Arizona than they are elsewhere. In part, that is due to the state's rapid growth and dramatic changes. Fewer people in Arizona than in some other states have deep roots here. In part, too, it's because Arizona is not a first-tier corporate center. But is that why many seemingly simple challenges are not met in Arizona? Not entirely.

The facts of leadership may not be quite what they seem. The situation's not perfect, but the CEO numbers and turnover are not the only problems. No matter how you count them, Arizona has enough potential leaders to run a small nation. Unfortunately, too many of them are sitting on the sidelines. At the same time, however, a substantial number of business executives and other potential leaders actually are engaged in civic affairs, just not in ways that reflect stewardship or in the ways we traditionally expect.

Many leaders are working on single issues or causes – tax cuts, a football stadium, desert preservation or transit – but their work is narrow. Often they do not

know what other leaders are doing or have a hard time linking their efforts with those of others. Many of those leaders lack the big picture of where Arizona is heading. Under these circumstances, the overall impact of strategies developed by even the most innovative, aggressive leaders is limited because affecting the complex challenges facing Arizona requires focused, coordinated and integrated approaches. Thus, leaders who lead in fragmented, disconnected and uninspired ways simply won't get the job done.

Arizona's next generation of leaders may simply be hiding. We also may not be looking in the right places for potential leaders. New sources of talent lie in emerging groups including entrepreneurs, Latinos and generation Xers. Very often as well, civic leaders sit on the sidelines because no one has asked them to be involved. Or, the civic involvement dictated by their corporate position fails to connect with their true passions. For example, one 40-something Arizona CEO said that he serves on numerous boards because it is traditional for his corporation to do so, but his personal passion actually shows in the numerous weekends he spends building Habitat for Humanity homes.

Arizona needs a new job description for leadership. Good, bad or indifferent, states get the type of leadership they expect. Citizen surveys discussed in this report show that Arizonans seem ready to raise expectations for Arizona's role in the new century and for the leadership required to get there. Today the increasingly relevant questions for leaders will not be whether an idea is liberal or conservative, but whether it is in tune with the new economic, technological and social challenges facing our society. Specific communities and issues will require increasingly innovative and *place-specific* answers. In the final analysis, *a location remains only as precious and essential as its inhabitants and leaders believe it to be.*

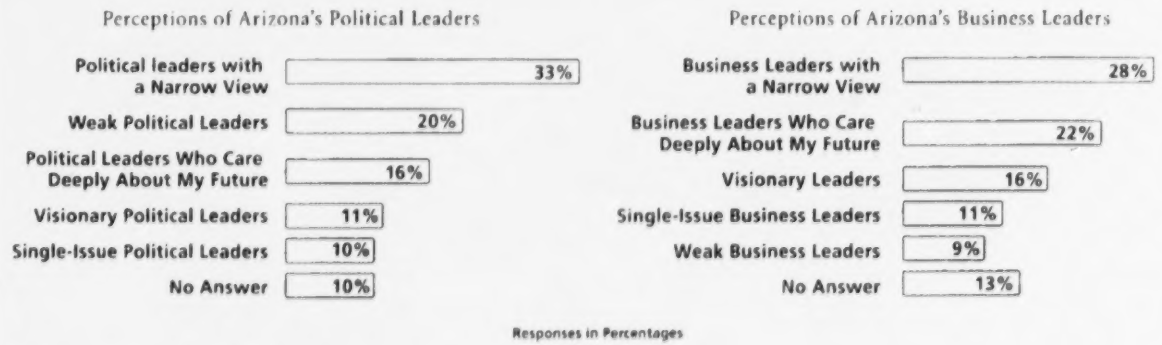
Imagine Arizona's Future With More Leaders Like This...

"A rare intelligence, a prodigious energy, the ability to persuade and explain, a sense of humor that erases tensions and makes friends, an instinctive understanding of process, an innate sense of justice, a good heart, and uncommon courage...never runs from a fight, not a person of ill will, nor a kamikaze legislator bent on suicide missions just to grab a headline or embarrass a colleague for partisan gain... knows the value of honorable compromise in the political arena – that half a loaf is better than no bread at all...is not afraid to do battle when the cause is just...proves ahead of the times and may not live to see some improvements...is fair-minded, and cares."

CNN's Larry King describing Morris K. Udall, who represented Arizona's second district in Congress 1961-91 and ranks as one of the state's truest stewards

FIGURE 1

Arizonans See State Business and Political Leaders as Having Too Narrow a View and Not Caring Enough About Arizona's Future



Source: Morrison Institute for Public Policy, 2001

These days the most popular parlor game in Arizona policy circles is: "Where have all the leaders gone?" The players usually come up with a number of answers to this vexing question.

The first is that company mergers and acquisitions are consuming Arizona's talented CEOs. Business heads heed the corporate call and then resurface in other states as prime leadership material. Two frequent examples of this phenomenon are Mike Welborn, former CEO of BankOne in Arizona, who was promoted to a national position in Chicago, and John Oppedahl, former publisher of *The Arizona Republic*, who went to San Francisco when Gannett Inc. bought Phoenix Newspapers Inc., the *Republic's* parent company. The second idea is that the captains of new economy start-ups do not assume the mantle of civic leadership in the same ways as the heads of traditional industries. The third response is that Arizona's political leaders are missing in action, especially when it comes to tackling the critical issues facing the state or bringing help home from Washington D.C. For a fourth group of leadership watchers, the problem is with citizen demand, not leader supply. That is, leadership quality can turn on a dime if citizens "demand it" and hold their leaders accountable.

Nearly everyone who enters into the leadership debate wonders: Where will our future leaders come from? Do we grow them? Do we recruit them? Do we train them? Do we empower them?

But the problem may not be a lack of potential leaders. Perhaps our leaders are keeping quiet because they do not know how to get involved or no one in the current leadership structure has asked them to step forward. Our leaders may be simply invisible, doing important civic work in nontraditional realms or ways. Perhaps nobody quite knows the recipe for successful leaders now.

Are we sure we know what's wrong – and right – with Arizona leadership? What are the forces shaping leadership quality and opportunity? At least five principal debates need to take place to understand this complex phenomenon better.

- Are CEOs sitting on the sidelines?
- Are we looking in the wrong places for new leaders?
- Are our elected leaders really as irrelevant as they appear?
- Have ballot measures replaced policy makers?
- Do we need a new job description for leaders in the twenty-first century?

Although all of these questions are critical to debate and resolve, some are more on target than others.

Are CEOs Sitting on the Sidelines?

A recent Harvard Business School study shows that corporate boards are 30 percent more likely to oust a CEO than they were 10 years ago. Merger-mania, consolidations, and globalization all speed the churn. As one observer notes, "Globalization has meant that corporations must now compete on a world-wide basis, often with investments in many different regions. CEOs of most large corporations have fewer roots in a single region and make less time for regional civic affairs. The greatest impact has been on Fortune 500 companies that were anchored in their regions."

Although Arizona has never been home to many Fortune 500 companies, some very big firms have a long history here. Chief executives of global corporations, regional and local banks and utilities traditionally have been a large, reliable source of community leaders. But many of these companies have been, or are being, transformed by the complex set of forces already mentioned. So, it is only natural to worry about Arizona's leadership.

What do we know now? Arizona does not lack for big company CEOs. While there are few Fortune 500s headquartered here, 34 privately held companies (grossing more than $100 million in revenues in 2000) and plenty of large publicly held companies consider Arizona home. In addition, Arizona has significant divisions of some of the world's most recognizable and important corporations including Motorola, Intel and Honeywell.

Morrison Institute's look at CEO tenure among these companies shows significant churn in the public companies but not the private ones. Comparing *The Business Journal* Company Rankings for 2000 and 1996, Morrison Institute found:

- Of the largest 25 Arizona-based public companies appearing in both lists, slightly more than half (52%) experienced at least one CEO or principal turnover in the last four years.
- Of the largest 25 employers (including divisions of Motorola, Intel, Honeywell, and Raytheon as well as large government employers) appearing in both lists, 65 percent experienced at least one CEO or principal turnover between 1996 and 2000.

A look at the large private companies and their CEOs who reside in Arizona reveals a different situation.

- Of the 34 largest private companies in Arizona (grossing more than $100 million) appearing in both lists, 22 percent experienced CEO or principal turnover from 1996 through 2000.

So while rotating public company CEOs might pose problems for sustainable leadership for Arizona and its regions, that's not the issue with privately held companies. In fact, Arizona's CEO stability among this latter group is better than in Georgia, another fast-growing Sun Belt state that provides a good comparison. Georgia's private company CEO turnover was 31 percent over four years, compared to Arizona's 22 percent. At Georgia's public firms, CEO churn was slightly less than Arizona's: 42 percent turnover versus 52 percent in Arizona.

Amid these ranks, then, there is still enough potential leadership to run a small nation. Yet, many seemingly simple challenges are not being met in Arizona. Organizations as notable as Greater Phoenix Economic Council and many other bodies in such institutions as universities, chambers of commerce, nonprofit organizations and local and state government find it increasingly difficult to fill their boards, commissions, task forces or fundraising committees from outside a narrow circle of business leaders.

So what gives? Perhaps the answer is that many of the potential leaders are "spectating," standing on the sidelines and waiting for others to make things happen for the state or region. That's the view of many analysts – not just in Arizona but elsewhere. Yet a lack of desire – or a focus on global corporate goals – might not be the problem.

Could it be, for example, that CEOs are not involved because they have not been asked to assume leadership roles or they find it difficult to connect to organizations and issues that fit with their personal interests? A study of corporate community involvement in the Austin area found that chief executives became involved with community organizations and issues because of personal interests (64%) or they were asked (32%). On the other hand, the problem may well be a mismatch in public and corporate expectations for community involvement. The Austin study found that corporations think their level of involvement is sufficient and meets community expectations, but that other firms should be doing more. Few firms though said they measure their involvement in the community.

It may also be that CEOs are involved deeply in civic affairs – but not in the arenas we are accustomed to. Many younger adults see leadership less as a state of being – membership on dozens of community boards – and more as a process of doing – a set of actions. One 40-something CEO in Arizona reported that he belongs to numerous boards because it is traditional for his corporation, but his real contribution – and passion – comes into play with the numerous weekends he devotes to Habitat for Humanity.

Considerations like these reveal some paradoxes about Arizona's corporate leadership situation. Leaders still exist, but they may be working on single issues or causes – tax cuts, football stadium, desert preservation or transit – and ignoring other related, but unaddressed problems. Leaders still exist, but they do not know what other leaders are doing, and have a hard time linking their efforts. Leaders still exist, but they are not unanimous in the goals they seek for the state. To the extent leaders in each industry pursue their own interests, construction, real estate and retail are likely to predominate.

Under these circumstances, the overall impact of strategies developed by even the most innovative, aggressive leaders is limited because the complex challenges facing Arizona require focused, coordinated and integrated approaches to problem solving. Thus, while it is essential to have leaders, those who lead in fragmented, disconnected and uninspired ways can be ineffective or even detrimental to Arizona's overall well-being.

Are We Looking in the Wrong Places for New Leaders?

As global, technological and demographic forces reshape the Arizona economy, so are they remaking the profile of the state's leadership talents. Entrepreneurs, Latinos and generation Xers come to mind as untapped talent.

Is it possible to develop a more inclusive leadership cadre that would include entrepreneurs, women, Latinos, young people and others, instead of just the "usual" CEOs? Is it possible to make civic responsibility attractive enough that potential leaders will come off the sidelines and onto the playing field?

Arizona has seen some of the challenges with recruiting young technology and Internet entrepreneurs for traditional civic roles. For example, when the Governor's Partnership for the New Economy sought members, it was hard to locate potential leaders to involve because many new economy entrepreneurs are not yet part of traditional networks. Once found, keeping them on board proved to be difficult because starting and building a fast-growth company can be all-consuming. As one biomedical CEO explained, "I care deeply about my region, but here are my priorities: building my company, building a new industry, and building my region, in that order."

The difficulty of identifying and tapping executives in fast-growing companies for leadership positions is striking when you consider that:

- Between 1996 and 1999, 30 new companies were added to the roster of Arizona's 50 fastest growing high-tech companies
- In addition between 1999 and 2000 alone, 28 more new firms made the list

At the same time, these groups are finding their own paths to leadership. For example, high-tech entrepreneurs in Austin have created the Austin Entrepreneur's Foundation to which they contribute stock. In Arizona, entrepreneurs have created a Social Venture Fund, which uses a venture capital model for investing to improve community well-being.

TABLE 1

Arizona Propositions on the Ballot

	Placed on Ballot by Legislature	# of Legislature Ballot Measures Approved	% of Legislature Ballot Measures Approved	Placed on Ballot by Citizens	# of Citizens Ballot Measures Approved	% of Citizens Ballot Measures Approved	Total on Ballot	Total Approved	% Approved
1912-1919	7	5	71%	47	28	60%	54	33	61%
1920-1929	19	6	32%	26	1	4%	45	7	16%
1930-1939	11	4	36%	18	5	28%	29	9	31%
1940-1949	11	7	64%	18	12	67%	29	19	66%
1950-1959	23	16	70%	16	3	19%	39	19	49%
1960-1969	19	16	84%	8	7	88%	27	23	85%
1970-1979	33	23	70%	6	4	67%	39	27	69%
1980-1989	46	32	70%	11	4	36%	57	36	63%
1990-2000	37	21	57%	35	19	54%	72	40	56%
Total	**206**	**130**	**63%**	**185**	**83**	**45%**	**391**	**213**	**54%**

Sources: Arizona Secretary of State, 1998, Morrison Institute for Public Policy, 2001

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Generation Xers – and young adults generally – are developing their own leadership styles that emphasize more direct action and one-on-one service. In a 1998 survey by pollster Peter Hart, the research showed that young people have a vision of leadership that is less directive, top down and charismatic and more empowering, bottom up and humble. *Washington Post* columnist E. J. Dionne Jr. also has noted the different outlooks of today's young adults. He calls them the "Reformer Generation" but the question he poses is whether their community mindedness will transfer over to the political arena. So far they have shown little interest in elective offices and voting.

Are Our Elected Leaders Really as Irrelevant on Big Policy Decisions as They Seem?

The public seems to be growing impatient with the "wizard of oz" policy making – short on brains, heart and courage – going on in the state. The similarities between the Lion, the Scarecrow and the Tin Man and state policy makers are rooted in many things. One is public doubt that much thought or brain power goes into making public policy. Such events as the recent alternative fuels' fiasco bolster skepticism about "thoughtful" leadership. Also, the strong role ideology plays in Arizona's elected officials' decision making fosters this impression.

Ideology provides elected officials with simple stock answers to big, complex problems, thus relieving them of the obligation for the heavy thinking and comprehensive analysis that's necessary to sort out complicated public policy issues.

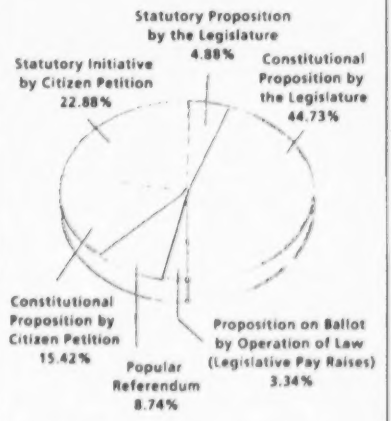
Morrison Institute's recent statewide survey made it clear that Arizonans want less of this kind of "leadership." Forty-three percent of the survey respondents characterized elected officials as leaders with a narrow view (33%) or single-issue leaders (10%) (see Figure 1). An additional 20 percent of the residents felt that Arizona has weak political leaders. Perhaps most important, the overall view of Arizona's political leadership is quite negative. Indeed, the state's residents seem to think that policy makers are as heartless as the Tin Man. Only 16 percent of the respondents said they believe leaders care deeply about the future of Arizonans.

Finally, frustration with the Legislature's unwillingness or inability to handle big, strategic issues is widespread. Indeed, the tough political choices in the state seem like they are made increasingly at the ballot box or in the courts. Conventional thinking puts the rise of ballot initiatives and referendums – where voters decide directly on issues – at the heart of this image. But defaulting to Arizona courts the job of deciding key policy directions adds enormously to the perception of a legislature struggling to stay relevant, especially when tackling strategic issues facing the state. In the last decade, various courts forced the Arizona Legislature to address school finance, mental health care, clean air and bilingual education. Tim Hogan, executive director of the nonprofit, nonpartisan Center for Law in the Public Interest, said the center has had to ask the courts to do "what our elected officials should have been doing – enforcing laws that are important to the health, welfare and pocketbooks of Arizona's citizens."

In the case of education finance, the Arizona courts and the voters stepped up to make the tough decisions that the Legislature dodged. In the early 1990s, the Center for Law in the Public Interest sued the state in Roosevelt Elementary School District No. 66 v. Bishop to force the Legislature to reform Arizona's school financing system. In 1994 the Arizona Supreme Court ruled that the great disparities in school funding between districts were a problem the Legislature had to resolve. Furthermore, the court held that the "Arizona constitution requires the legislature to enact appropriate laws to finance education in the public schools in a way that does not itself create substantial disparities among schools, communities or districts" as had been the situation leading up to the suit. In 1996 and 1997 the Arizona Supreme Court rejected plans proposed by the Legislature, but eventually the "Students First," plan was accepted which directed that the many billions of dollars needed to correct disparities come from general fund revenues rather than new taxes.

FIGURE 2

Types of Propositions Since Statehood


Statutory Proposition by the Legislature 4.88%
Statutory Initiative by Citizen Petition 22.88%
Constitutional Proposition by the Legislature 44.73%
Constitutional Proposition by Citizen Petition 15.42%
Popular Referendum 8.74%
Proposition on Ballot by Operation of Law (Legislative Pay Raises) 3.34%

Source: *Pieces of Power, Governance in Arizona*, 79th Arizona Town Hall, 2001

However, it was clear immediately that "Students First" was not going to fix the school funding problem. But rather than make the decision to raise taxes to fund education, the Legislature delegated that decision to voters. Legislators placed Proposition 301, a measure to raise the state's sales tax by .6 percent to fund education needs, on the 2000 election ballot. The measure passed. In this case, policy making followed a disturbing pattern: a court ruling kick started a discussion about an urgent policy issue that should have been addressed long before. The Legislature attempted to solve the problem too late in the process; and eventually the voters had to make the final call.

Of course, Arizona elected officials are not all cut from the same cloth. Republicans Governor Jane Dee Hull and former Superintendent of Public Instruction Lisa Graham Keegan provided the intellectual capital, passion and courage it took to propose the first tax increase after a nine-year run of

' *As described by Arizona political scientist David Berman, the alternative fuels program came in the form of legislation, hastily passed at the insistence of House Speaker Jeff Groscost in the spring of 2000, which provided large tax rebates to purchasers of alternative fuel vehicles. As originally adopted, the law rebated the entire cost of converting a vehicle to run on natural gas or propane and a third of the vehicle's price. Lawmakers, acting hastily and without full information, underestimated how many people would take advantage of the program. As more and more people (over 20,000 in all) requested the rebate, the Legislature's original estimate of a $3 million cost to the state and the $10 million figure from the governor rose to over $500 million. Critics also doubted whether the program would have any effect on pollution since people who added alternative fuel tanks were not required to use them*

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tax cuts. But the perception remains that state political leaders work to advance narrow agendas or on issues of special interest to them, but they sit on the sidelines when the biggest, most difficult issues come up.

Have Ballot Measures Replaced Policy Makers?

No assessment of trends affecting Arizona leadership can avoid the issue of ballot initiatives and referendums. In Arizona, and other states particularly in the West, the initiative and referendum are historical tools that still allow citizens to speak directly to today's political issues. Through the initiative process, voters can pass new state laws or amend the state constitution; through the referendum, voters also have the opportunity to prevent laws from going into effect (see Figure 2). Citizens can put an issue to a vote by obtaining the requisite number of signatures. Alternatively, the state legislature can also refer a measure – to amend the state constitution or make statutory changes – to the ballot. All constitutional amendments must be placed on the ballot and approved by the voters.

The original idea of the initiative and referendum was to give citizens the ability to wrest power from legislatures dominated by special interests. But today the initiative process itself is often, according to *Washington Post* columnist David Broder, "manipulated by moneyed interests, often funded by out-of-state millionaires pursuing their own agendas on a new frontier of American politics operating virtually without public scrutiny."

In this regard, examples in Arizona include the "medical marijuana" initiative in 1996 and the lottery measure put on the ballot in 1980 by an out of state company that operated state lotteries, both measures opposed by key elected officials. In this group is also the 1996 measure that requires the state to enter into gaming compacts with Native American tribes, and the 1988 constitutional amendment making English the official language of the state after the legislature had refused to take action.

But in terms of the central question concerning the lack of legislative leadership and how this void may have been filled by citizens groups both in terms of numbers and in regard to major policy decisions, the "protest" or popular referendum and the citizen initiative are the best indicators.

In this regard, Arizona ranks among the top six states in terms of its use of these two vehicles, according to national observers. What's more, there has been an increase in protest referendums in recent years (6 in the 1990s, compared to 0 in the 1980s and 0 in the 1970s, by one expert's analysis) and in the initiative (22 in the 1990s, 11 in the 1980s, and 4 in the 1970s).

Belief that elected officials are not responsive to the public or not leading in the desired policy direction seems to be a key reason behind these measures. Consider the following history:

- Propositions in 1990, 1994, 1996 and 2000 were successful initiatives to earmark lottery revenue for the Heritage Fund, to increase state taxes on tobacco products to fund health care, to earmark lottery revenues for health care, and to require Arizona to deposit tobacco settlement money in a Healthy Children, Healthy Family Fund, respectively.
- Propositions in 1992, 1998, and 2000 were successful ballot measures to establish term limits for elected officials, public funding of elections, and an appointed Redistricting Commission to determine legislative and congressional districts, respectively.
- Propositions in 1992 and 1998 limited legislative discretion by requiring a two-thirds majority in both legislative houses to raise taxes or fees and by placing limits on the ability of governors and legislators to tamper with voter-approved measures.

Arizona may soon find that, as the ballot is increasingly the policy making vehicle of last resort, it is also an unpredictable one. The risks of unintended consequences are growing, especially as ballot measures are used to write tax laws or other complex legislation. Suppose Alt-fuels had been a voter-approved initiative instead of legislation: What would be the remedy to undo the potential $500 million tax break to a special interest? The Citizens' Growth Management Initiative on the ballot in 2000 was so complex that most people were baffled by it and worried about unintended consequences. Today many people are expressing surprise at what was in the successful education finance initiative in 2000, despite drafts of it having been vetted through the legislative process. Similarly, the campaign finance initiative approved in 1990 may cost the state much more than originally anticipated because many candidates are taking advantage of it.

One can, of course, write such instances off as aberrations that prove nothing in general about ballot policy making. But Arizonans should be reluctant to do that because there is a clear trajectory emerging for increasing ballot policy-making.

Analysis indicates that there has been a growth in ballot propositions. As Table 1 shows, 30 percent of all ballot measures ever voted on in Arizona have appeared on the ballot in the last 20 years.

Moreover, the ballot measures in recent years seem to differ significantly in intent from those in the past. Most measures in the early years dealt with government organization and institutions. In the 1950s, for example, the legislature referred a number of constitutional amendments dealing with government structure to the ballot. Citizens' initiatives dealt with employment issues such as workers compensation and social security. During the 1970s the overarching theme was again government organization. For example in 1972, technical constitutional amendments defined recall elections and senate appointments. During the 1980s, most ballot measures were advanced by the legislature and dealt with tax structure – an echo of California's Proposition 13.

But in the last decade, the range of issues decided by the ballot has grown. In addition to several significant government organization and operation issues (legislative redistricting commission, public finance of campaigns), citizens' initiatives and legislative referrals tackled aspects of education, health care, growth management and crime. Perhaps

TABLE 2

Ballot Measures Dictating State Revenue Allocation 1990-2000

Year	Proposition Number	Purpose	Adopted	Type	Total* on Ballot That Year
1990	200	Earmarks state lottery money for Heritage Fund (parks and trails)	Yes	Citizen Initiative	12
1992		None			13
1994	200	Increases state tax on tobacco to use for health care, education, and research	Yes	Citizen Initiative	8
1996	203	Makes more low-income persons eligible to receive healthcare under AHCCCS; sets aside lottery funds for 6 programs	Yes	Citizen Initiative	8
1998	200	Establishes publicly funded campaigns; establishes surcharges and other fees and earmarks for campaigns	Yes	Citizen Initiative	15
	303	Earmarks $20 million annually to purchase state lands for preservation	Yes	Legislative Referral	
2000	200	Directs tobacco settlement money over the next 25 years to a Healthy Children, Healthy Families Fund	Yes	Citizen Initiative	13
	204	Directs tobacco settlement money to be used for low-income health care (AHCCCS)	Yes	Citizen Initiative	
	301	Increases state sales tax and earmarks revenues for specific education purposes	Yes	Legislative Referral	
	302	Increases "tourist" tax to fund football stadium	Yes	Legislative Referral	

* Excluding salary commission ballot measures

Source: Morrison Institute for Public Policy

most significant, the ballot measures, for the first time, dictated state budget or spending decisions (see Table 2). In 1994 voters approved a measure to raise the state tobacco tax and earmark the new revenue for health care for poor families. In 2000 voters passed Proposition 200 that requires Arizona to deposit the money it receives over the next 25 years from the 1998 Tobacco Settlement agreement into a fund for health care. Also in 2000 voters approved Proposition 301 to raise sale taxes to fund teacher salaries, university research and other educational needs.

Thus, as a leadership issue, ballot measures present a very legitimate catch 22: Every successful ballot measure gives the public one more reason to distrust elected officials, and that gives the politicians one more reason to kick the next tough decision to the voters.

Do We Need a New Job Description for Leaders?

Whether Arizona evades the threats of the "shoes" discussed in this report or overcomes them depends in large part on the extent to which Arizonans act as leaders. At the same time, tackling the issues with a traditional leadership style will not help Arizona excel in the early part of the twenty-first century. The world is very different and enormously more competitive than just 10 years ago. That reality requires more than ever that leaders – whether in business, government, schools and universities, or nonprofits – ask the right questions and implement answers that work not just for them, but for Arizona as a whole. Today the increasingly relevant question for leaders, say national experts, will not be whether an idea is liberal or conservative but whether it is in tune with the new economic, technological, and social challenges facing our society. Specific communities and issues will require increasingly innovative and *place-specific* answers.

Most Arizonans do not see the state having that style of leadership today. For example, Morrison Institute's survey found that the respondents believe the state is led by business and political leaders with narrow interests or single-issue agendas. Only about a quarter of the respondents said they view their political leaders as being visionary or caring about Arizona's future.

Interestingly, however, the respondents trust business leaders more than politicians. They believe business leaders are stronger, more visionary and care more about the future. However, business leaders are also viewed as having narrow interests and focusing on single issues.

What Arizonans described in the survey is a traditional style of leadership, says Doug Henton, coordinator of the national Alliance for Regional Stewardship. He says that Arizona, like many places, is beginning to see the limitations of traditional forms of leadership: "Traditional leadership may exist in a region in the form of CEOs of major corporations, issue advocates, neighborhood activists, social entrepreneurs, and ethnic community leaders, but even with these traditional forms of leadership, why are the most pressing and most difficult regional issues not finding resolution." These types of leaders are still essential to states and communities, says Henton, but another type of leader is necessary going forward, namely regional stewards. Derived from the word "stewardship," which refers to "the careful and responsible management of something entrusted in our care," stewards are leaders who are committed to the long-term well-being of places.

As Table 3 shows, stewards go beyond traditional forms of leadership: They are leaders who cross boundaries, take an integrated approach, and build coalitions for action. They have 360-degree vision, recognizing the interdependencies between the economy, environment and social equity. Stewards operate at the center of the tough issues, not on the edges. They are risk takers. They are passionate and energetic. They are people of vision.

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Policies to Keep the Shoe from Dropping

Based on the surveys discussed in this report, Arizonans seem ready to raise expectations for Arizona's role in the twenty-first century and for the leadership required to get it there. So the challenge now is to come up with ways to move beyond the traditional forms of leadership. Three ideas are presented to add fodder to Arizona's leadership debate and encourage more stewardship in Arizona.

Demand that business and elected leaders first be stewards of Arizona.
Given all these realities, it's clear that Arizona needs a new model of leadership in both the civic and political realms. For Arizona to succeed, its leaders must view themselves as stewards of Arizona as a place. In the final analysis, a location remains only as precious and essential as its leaders and inhabitants believe it to be. Thus, we have a clear leadership search: Who has enough intelligence, imagination, cooperation and commitment to make the best use of the opportunities and challenges before the state, some of which are outlined in this report?

From CEOs to elected officials to entrepreneurs to citizens groups, leaders cannot be focused only on single issues, set ideology, political survival or short-term self-interest at a time when major challenges – such as Latino education, economic excellence and other issues – demand long-term, integrated solutions.

Arizona has good models of the sort of leadership needed. One has only to recall Mo Udall, Barry Goldwater, John Rhodes, and Bruce Babbitt – all of whom were committed to the long-term future of Arizona as a place.

Water is an important example. Decades past, Arizona "entrusted" its economic future to these political leaders and others, and they delivered in a big way. As a result of their stewardship, this desert state has a secure water supply. Among other things, these leaders delivered federal approval and enormous amounts of federal funds to design and build the Central Arizona Project (CAP) to bring Colorado River water to Arizona. While CAP was critical to Arizona, it was widely opposed by environmental groups, which where major constituencies of both Udall and Babbitt. Moreover, Udall was opposed philosophically to many aspects of the CAP and Lake Powell developments. But both men put aside their personal causes to secure Arizona's future. Republicans Goldwater and Rhodes had their own conflicts, but they never wavered from the job of being "responsible" for Arizona's future.

Many see that type of stewardship as missing today. Indeed, Greater Phoenix–the economic engine of the state – felt that it had to print a "federal agenda" to get the attention of the state's Congressional delegation. Tired of inaction and stonewalling on ideological grounds (funding for transit, for example), Greater Phoenix placed in its agenda a subtle reminder of accountability and responsibility for the future of the state and its regions.

For Arizona to excel, our state leaders must move beyond narrow special-interest agendas. They mush operate at the center of the tough issues, not at the edges. They must have an unswerving devotion to positioning Arizona well in the new economy of the twenty-first century.

End term limits, with some stipulations.
Term limits are a politically popular idea, and limits have some merit. Yet it's exactly the sort of issue that has eroded both political will and political leadership in Arizona.

On the surface, term limits fix what voters say they do not like about politics. But decisive, collaborative, thoughtful leadership is essential for Arizona to face the challenges outlined here. The short-term horizon created by the nine-year-old term limits law and low pay work against achieving that goal. The state needs to stem the "brain drain" from political leadership just as it must stem the brain drain from the state's businesses.

For Arizona to attract the best leaders, the state should consider "upgrading" the Arizona Legislature by repealing term limits, increasing lawmakers' pay and moving to nonpartisan elections. Such reforms would extend the state's commitment to enhancing the quality of its leadership as it did through the public financing of elections and a nonpartisan redistricting commission. On the one hand, better pay and an end to term limits might draw more of the state's best leaders into government. On the other, legislators who are elected without party affiliation would be held more strictly accountable to the ideal of public service and this would possibly facilitate stewardship.

Surely it's time to ensure that Arizona's Legislature can compete in the age of talent.

Embrace a local option approach to regional collaboration.
One of the tallest orders for Arizona leaders remains finding ways to connect diverse local agendas into a web of cooperation across the state's regions. California may provide a clue for how to do this. There, a commission formed by the Speaker of the California Assembly is developing plans for evoking regional thinking by mandating a menu of fiscal reforms but leaving specific choices to local discretion.

Collaboration matters hugely in a regional world, where problems like traffic constantly spill over local boundaries. At the same time the state's traditions of local control aren't soon going anywhere. That means that the key challenge for leaders today is to craft new ways to address problems like traffic congestion or workforce training or growth management in a collaborative way that respects existing local autonomy. Regional collaboration should be promoted through incentives and options provided by the state to local governments rather than by mandates. Moreover, regional collaboration should be promoted across environmental, economic and social issues – not one issue at a time.

TABLE 3

Stewards Go Beyond Traditional Forms of Leadership. They are Committed to the Long-Term Well Being of Places.

Traditional Leadership	Regional Stewardship
One jurisdiction, one organization	Multiple jurisdictions and organizations
Specific problem or goal	Integrated vision for the region
Single network	Diverse collaborative networks
Commitment to an idea/cause	Commitment to place

Source: Alliance for Regional Stewardship. *Regional Stewardship: A Commitment to Place*

The Revenue Sieve

Arizona's tax system is old and full of leaks.

Arizona no longer has a balanced and efficient tax structure. Not so long ago Arizona earned plaudits for the "balance" of its system. Then, Arizona tracked with tax experts' suggestions that low rates maintained across a diversity of tax bases (including income, property and sales taxes) provide the most stable revenue yields in changing times. Now, however, cuts in income and vehicle license taxes and other moves have left the state heavily dependent on collections from a sales tax base that is already narrow – and getting narrower because of e-commerce and the shift to a service economy.

State lawmakers' penchant for handing out tax exemptions to special interests has further disrupted the balance and efficiency of the system. The result is a system that has a light overall tax burden – but a heavy assessment on businesses compared to other Western states.

This weakened, unbalanced tax system could harm the state – at the exact time when Arizona must upgrade its public services to ensure a prosperous future. Two equally distasteful scenarios are possible. In one, local governments and the state may each be forced to increase their sales tax rates repeatedly to generate revenue for basic services. In the other, holding the line on rate increases may simply preclude necessary investments, whether in education, quality amenities or well-targeted tax cuts.

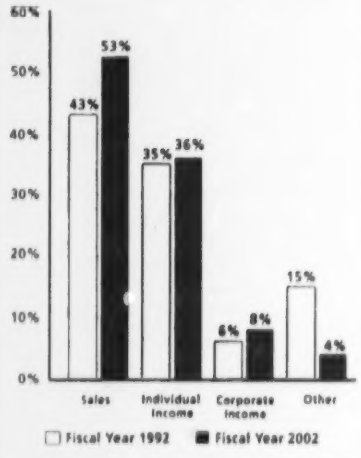
To avoid these scenarios Arizona must update its tax systems for the new economy by rebalancing its revenue mix and broadening its tax bases. Sales taxes should be applied to services, as well as goods. Lawmakers should close dozens of the exemptions, credits and other tax breaks that cost the state millions of dollars each year. And, too, personal income tax increases and the use of more impact fees should be considered to finance reductions in high business and sales taxes. Such changes would not just ensure future revenue flows, but also restore balance and fairness to the system.

FIGURE 1

The Tax System Lacks Balance

The State of Arizona's Dependence on Sales Tax Collections for Revenue Increased Dramatically Over the Last Decade. Today 53% of Total Revenue Comes from This One Tax.

Sources of State Revenue, Fiscal Years 1992 and 2002



Source: Arizona Joint Legislative Budget Committee

The changing base:
It took the telephone 35 years to get to 25% of all homes in the United States.
It took TV 26 years.
It took radio 22 years.
It took PCs 16 years.
It took the Internet 7 years.

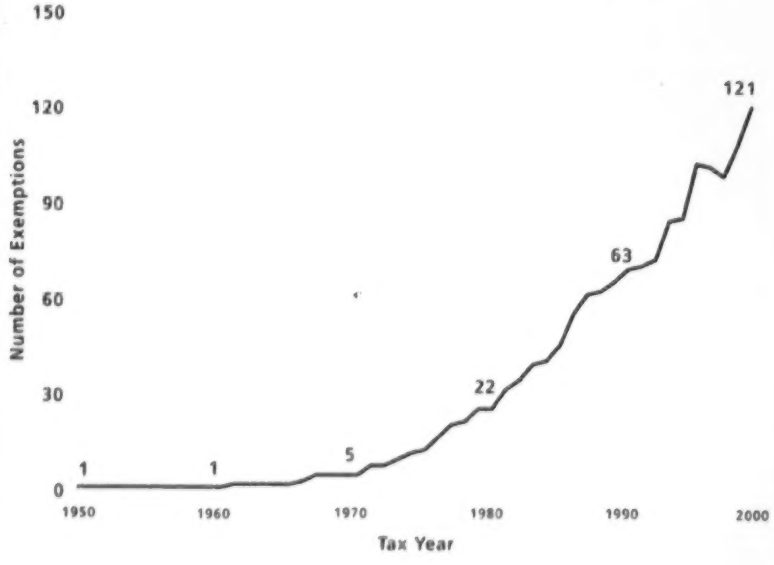
Fast Company
September 2001

FIGURE 2

A Hodgepodge of Isolated Political Decisions Throughout the 1990s Has Created a Revenue Sieve: Two Examples

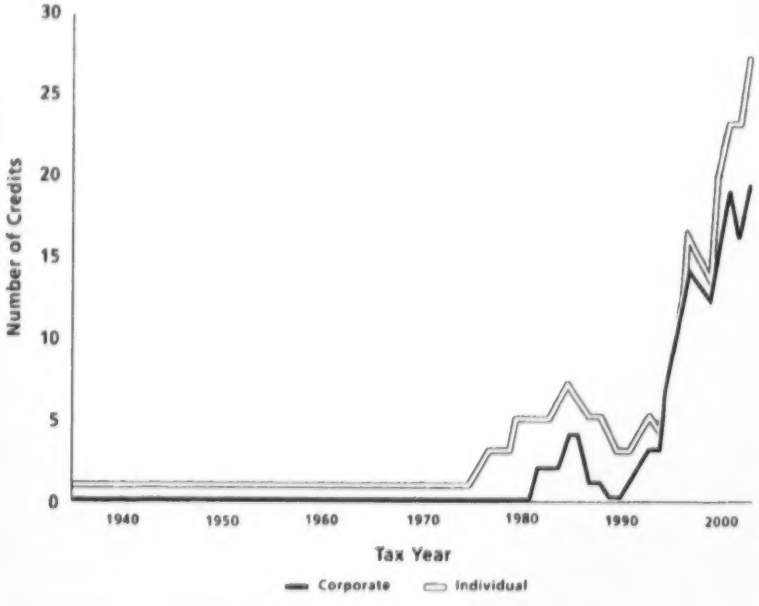
The Number of State Sales Tax Exemptions Nearly Doubled in the 1990s...

Arizona Sales Tax Exemptions, 1950-2000



The Number of State Income Tax Credits Also Proliferated in the 1990s

Arizona Income Tax Credits, 1935-2001



Sources: Arizona Joint Legislative Budget Committee, Arizona Department of Revenue

Economic, technological, social and political forces are undermining the viability of Arizona's tax system. More significant than the ritualistic tax squabbles of the Legislature, the challenges differ from the issues raised by Arizona's comparatively light overall tax burden and heavy business assessments (see Table 1). Moreover, budget surpluses generated during recent years of extraordinary economic expansion have obscured the new threats. Nevertheless they may subvert the ability of Arizona's tax mechanisms to raise adequate revenue for needed investments. Indeed, the current projection calls for a significant shortfall in state revenues in a year in which a recession was not expected.

Deep-set and structural, the threats to the system center on the growing obsolescence of Arizona's present mix of revenue sources, with its heavy reliance on sales taxes. Tax experts, whether liberal or conservative, generally agree that wide, diverse tax bases (income, property and sales) yield the most stable revenue flows. Arizona in fact rated well on measures of balance, fairness and diversity of sources in comparison to other states as late as the mid-1990s. But the state has lost its balance.

Most important, Arizona now depends much more than most states on sales taxes for general fund revenue. In 1997, for example, just nine states raised larger percentages of their combined state and local revenues from general sales taxes than Arizona's 35 percent. In 1999, only eight state governments depended more on sales taxes (see Figure 4). Since then the state's dependency (leaving aside local levies) has gone even higher with the implementation of the state's new six-tenths of a cent sales tax hike earmarked for education (see Figure 5).

The problem with this is that economic and social changes are rushing past the narrow foundation of Arizona's tax system. Years ago, a more industrial economy traded mostly in tangible goods, so focusing taxation on purchases of goods made sense. But now the new economy, lifestyle changes and population trends are leaving Arizona's tax structures behind. The state's continuing shift to a service

TABLE 1

Arizona Taxes Business Heavily and Households Lightly

Household and Business Tax Burden*, Fiscal Year 1995-1996

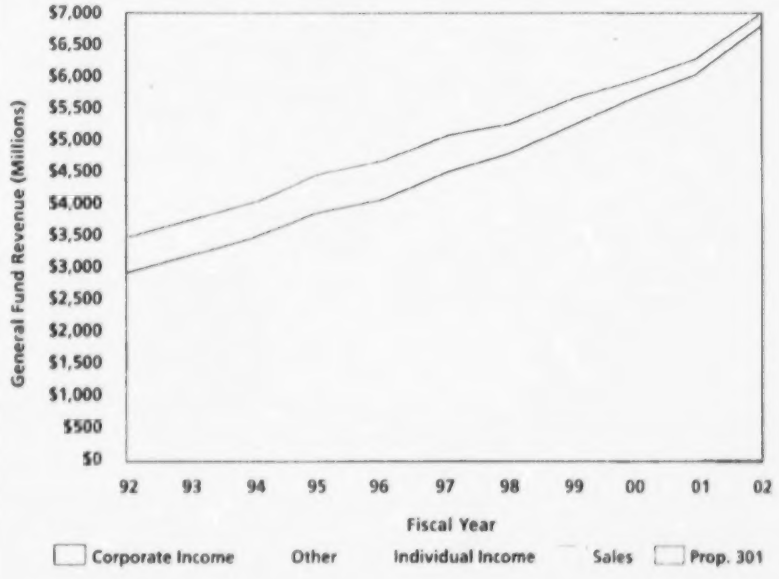
	Household Taxes per $1,000 of Personal Income	National Rank	Business Taxes per $1,000 of Gross State Product	National Rank
ARIZONA	**$66.51**	**32**	**$42.60**	**14**
California	70.02	22	36.30	26
Colorado	64.10	36	31.60	39
Idaho	73.40	18	34.40	32
Nevada	73.70	17	31.00	42
New Mexico	76.38	9	38.00	23
Oregon	69.39	24	31.30	41
Texas	46.98	48	42.60	13
Utah	76.67	8	33.40	35
Washington	59.40	40	52.00	2
UNITED STATES	**68.00**	–	**38.40**	–

* A lower rank signifies a higher burden. Arizona's business tax burden is 14th highest in the nation.

Sources: Center for Business Research, Arizona State University, William Seidman Research Institute, College of Business. Gross state product is from the U.S. Bureau of Economic Analysis. Estimates of percent of taxes incident on business are from the Institute on Taxation and Economic Policy.

FIGURE 4

The State of Arizona's General Fund Revenues Over the Last Decade



Source: Arizona Department of Revenue

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economy, the rise of e-commerce and the simultaneous aging and Latinization of Arizona's population all could reduce state and local tax collections as service needs increase. Further leakage is also resulting from Arizona lawmakers' fondness for tax exemptions that riddle an already narrow tax base with costly new holes.

Five key trends have important implications for Arizona's ability to make needed investments in its future:

1. The shift to a service economy is moving more purchases beyond the reach of sales taxes.

This "leakage" is happening because Arizona's definition of its sales tax base (most purchases of "goods" are taxed now at 5.6 percent but "services" as varied as haircuts and legal advice are exempt) no longer reflects Arizona's economy adequately. Most notably new consumption patterns associated with the rise of a service-oriented, knowledge-based economy have seen residents' spending go more to untaxed services and less to tangible goods. Nationally, spending on goods declined from 53 percent of consumption in 1979 to 41 percent in 1998. Service consumption rose from 47 percent to 59 percent. In Arizona, this has meant that taxable retail sales growth has lagged personal income growth, increasing by just 87 percent in dollars between 1985 and 2000, while income grew by 106 percent. The result is a net shrinkage of the state's sales tax base relative to the overall economy, and a lag of tax collections behind growth.

This loss of revenue is not just theoretical, either. State tax administrators and academic specialists have each analyzed the situation and found it costly. In 2000 alone, Arizona's exemption of professional, business and personal services from the state's "transaction privilege" (sales) tax cost the state at least $1 billion, according to the Arizona Department of Revenue. Looking forward, public finance experts Donald Bruce and William Fox of the University of Tennessee's Center for Business and Economic Research forecast an additional two percent ($218 million) loss in potential Arizona state and local revenue in 2003, absent new rate hikes, as purchasing continues to tilt toward services. About a quarter of those losses would be visited on cities and counties, given how the state shares revenues with localities. The bottom line: Arizona's failure to change its sales tax base to conform to new economic realities has left the state unable to tax its fastest-growing sales sectors and vulnerable to chronic revenue lags.

2. E-commerce continues to grow and bypass the state's tax system.

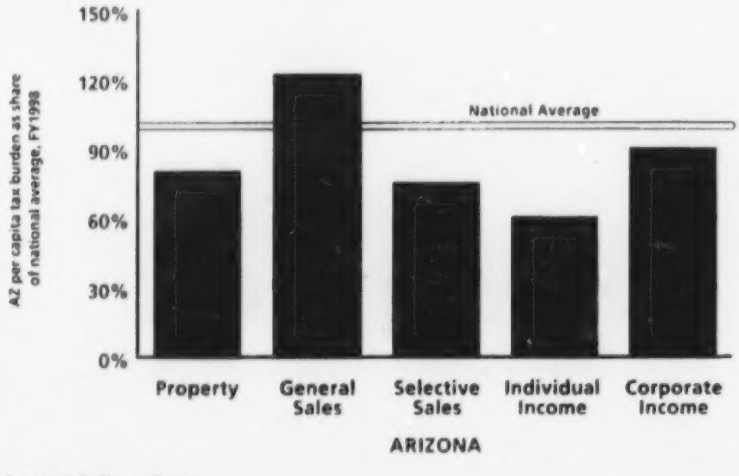
The crux of this problem is the inability of states and localities to collect the customary sales tax on purchases made via the Internet. Although most such "remote" sales technically are subject to taxes, the administrative hurdles to collecting them are daunting, with the effect that states rely on voluntary compliance. Furthermore, a federal moratorium on Internet sales levies precludes a state response. The result is that hundreds of millions of dollars of Arizonans' purchases of software downloads, books from Amazon.com and laptops from Dell currently go untaxed. Such untaxed retail e-commerce will likely spread, moreover. Notwithstanding the current "dot.gone" shakeout of e-tailers, market research firm Forrester Research forecasts e-commerce growth at 84 percent a year in the next two years as "dot.com" survivors mature and national retailers develop online systems to complement their storefronts. Analysts Bruce and Fox calculate that Arizona's e-commerce levels could reach $5.1 billion by 2003. That implies Arizona could lose another 1.5 percent ($183 million) of its total state and local revenue in 2003. The cost to cities and counties would total as much as $45 million.

3. Demographic changes such as the Latinization of Arizona and the aging of the baby boom could constrain revenue growth further.

Both these trends imply shifts in income and consumption patterns that could narrow the tax base and slow collections from Arizona's current tax code. Latinos' proportionally heavy expenditures on untaxed food and relatively lower incomes could slow revenue growth compared to population growth. The aging of the baby boom also has fiscal implications because older citizens earn and spend in unique ways – ways that frequently go untaxed at present. Much of older citizens' income, for example, derives from pensions and retirement benefits

FIGURE 5

Arizona's Per Capita State and Local General Sales Tax Burden Far Exceeds the National Average. All Other Tax Burdens Are Lighter Than Average.



Source: U.S. Census Bureau

TABLE 2

Arizona Loses $1 Billion a Year in Revenue from the Exemption of Services from Sales Taxes

Some are Justifiable Exemptions (such as for Business Services) but Many are Not

Exempted Service Type	Cost to State (in millions of dollars) of Exemption From 5% Transaction Privilege ("Sales") Tax
PROFESSIONAL SERVICES	
Legal	$88.90
Engineering	63.50
Architectural	19.20
Surveying	2.15
"Accounting, auditing, bookkeeping"	38.50
Physicians	148.60
Optometrists	4.60
Chiropractors	8.10
Dentists	41.40
"Physical, occupational and speech therapists"	7.20
Nursing and personal care facilities	41.60
Outpatient care	17.50
Home health care services	18.00
Other ambulatory professional services	12.00
Total Reportable Professional Services	**$511.60**
BUSINESS SERVICES	
Services to dwellings and other buildings	32.90
"Credit reporting, collection agencies"	10.80
Advertising direct mail services	21.90
Public relations	1.40
Market research	4.90
Telemarketing bureaus	11.50
Document prep services	2.30
Stenographic services	1.00
Graphic design	5.67
Commercial photography	1.00
Computer programming	21.00
Computer systems design services	30.30
Management consulting	37.90
Environmental consulting	3.20
Scientific and technical consulting	5.90
Scientific research and development	13.00
Testing laboratories and facilities	8.60
Investigation and security services	15.50
Interior design	5.30
Telephone answering services	5.50
Business service centers	11.30
Employee leasing services	62.80
Temporary help services	64.70
Linen and uniform supply	8.10
Parking	2.00
Auto repair	84.30
Other auto services	18.20
Electronic and machinery repair	36.10
Re-upholstery and furniture repair	1.40
"Watch, clock and jewelry repair"	0.60
Miscellaneous repair and related services	2.80
Total Business Services	**$511.60**
PERSONAL SERVICES	
Dry cleaning and laundry	6.30
"Hair, nail and skin care services"	13.10
"Footwear, leather and garment repair and alteration"	0.40
Death care services	6.90
"Photographic studios, portraits"	2.60
Diet reducing services	1.90
Personal and household goods repair	11.60
Miscellaneous personal services	1.70
Child day care	9.40
Other social services	13.90
Technical and trade schools	8.00
Total Personal Services	**75.80**
Total Services Exemptions	**$1.1 billion**

Source: Arizona Department of Revenue, FY2000

(including Social Security checks) not from wages. Large portions of such income go untaxed, given the state's $2,100 income exemption for taxpayers 65 and older and the $2,500 deduction from Social Security or railroad retirement income. Typically the combined cost of those benefits exceeds $40 million annually, according to the Arizona Department of Revenue. On the consumption side, older citizens spend more on health, medical services and prescription drugs that are rarely taxed in Arizona. In this fashion, Arizona state and local tax policies toward older citizens provide another example of how the revenue structure may be lagging behind social change.

4. The coming crash of capital gains collections adds another variable.

Call it a hangover from the go-go stock market of the late 1990s. Regardless of the description, Arizona will soon lose another source of revenue associated with rapid economic change, namely the realization of capital gains from recent stock run-ups. This sudden loss is the downside of the increased income tax collections that resulted from capital gains on stocks in the 1990s. In the mid- to late-1990s the state enjoyed a series of pleasant "April surprises" when income tax revenues were counted. Those surprises accounted for some $70 million of the state's average annual revenue growth in the late 1990s, according to ASU economist Dennis Hoffman. Now, with the stock market in a slump, Hoffman estimates that the state soon will experience a $100 million decline in collections due to a corresponding decline in capital gains. This too, points to the fundamental weaknesses of the state's tax system.

5. The proliferation of tax credits, exemptions and other breaks has subtracted billions of dollars from current and future tax revenues.

To be sure, some recently legislated exemptions, such as the corporate income tax credit for research and development, comport with sound tax policy. Other exemptions – like those of school lunches and university tuition from sales taxes – promote socially desirable ends. Nevertheless, even the most

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justifiable of such provisions poke holes in the state's tax base and reduce tax revenues. Moreover, many of Arizona's tax exemptions – the number of which have exploded in the last decade – flout the tenets of good tax policy. Oftentimes the breaks are too broad or too narrow, making them inefficient. Frequently their creation seems piecemeal and myopic. And then there is the cost: The exclusions are reducing the amount of revenue available for current state (and local) programs, or better designed, more efficient and meaningful tax cuts. In this regard, the $200-million "alt fuels" debacle this year looks more indicative than aberrant. Consider some of the other holes in the state of Arizona's two most important revenue systems, its sales and income tax structures.

Sales Tax Exemptions

Arizona forgoes some $2 billion a year in consumer sales tax exemptions, according to annual estimates by the Arizona Department of Revenue. That is in addition to the $1 billion it forfeits by not collecting on purchases of services (see Table 2) and the more than $2 billion from the "wholesale trade" provision that exempts businesses' purchases of "business inputs." By comparison the $2 billion in consumer sales tax exemptions approaches five years' worth of the collections projected under the state's new sales tax for improving K-12 education.

This sizable revenue giveaway stems from a hodgepodge of isolated political decisions since the 1980s and particularly throughout the 1990s.

Some of these 100-plus tax decisions are longstanding and justifiable, such as the exclusion of groceries from sales taxes, yet inefficient. The food exemption benefits poor Arizonans, but it also costs $280 million a year because it also subsidizes many affluent residents. Other exemptions serve plausible economic or social ends, but at the cost of dollars and code complexity. As for many other exemptions, they constitute a plethora of tax breaks that are not easily justified. For example, Arizona's general contractors get a break on construction materials, and a mining machinery exemption cost $17 million last year. Agriculture breaks are on the books for breeding goats, animal vitamins, livestock feed and egg packing machines. Dozens more business interests have persuaded lawmakers to poke holes in Arizona's tax base. The state's 111 sales tax exemptions include breaks for stock sales ($96 million), airline food, purchases of lottery tickets ($12.7 million), fitness club dues ($16.7 million), sales to golf booster groups and hotels' purchases of soap.

Income Tax Credits

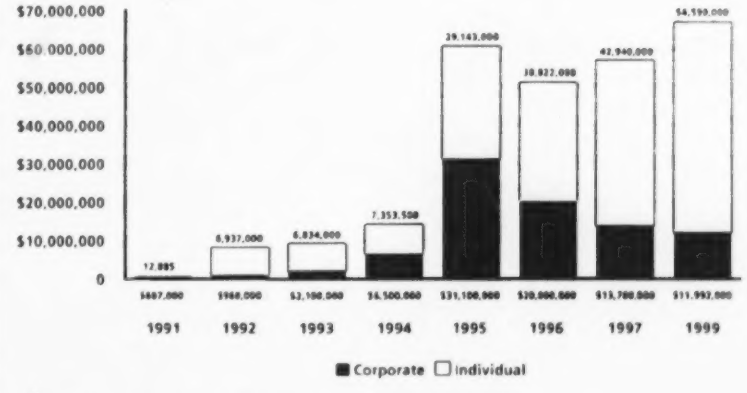
Income tax credits also have grown significantly since 1992. Before 1993, no more than 10 individual or corporate reductions in tax liability were available from the state. Now in 2001, 46 credits are available, covering everything from purchases of construction materials and donations of school sites to the installation of pollution control devices. Granted, these concessions generate less impact than the income tax rate cuts initiated in the 1990s (which have subtracted as much as $2.5 billion from what would have been the state's revenue stream). Still, the credits have poked holes in the tax structure, with little apparent consideration for the state's future. In 1999, the last year for which figures are available, individual and corporate income tax credits cost the state at least $66 million (see Figure 6). In addition, more than $600 million of unused corporate credits remain available for future tax years.

Put All This Together, and It Is Clear Another Shoe is Dropping

To be blunt, an outmoded tax system is leaking hundreds of millions of dollars each year that might otherwise be applied more systematically to investments in the state's future. No doubt, the forfeitures lack the visibility of cuts to the vehicle license tax and other levies in the 1990s, but the lost dollars count at budget time just as much. That being the case, two equally distasteful scenarios are plausible. In one scenario, lagging revenues unaddressed by tax rate increases could simply reduce Arizona's ability to invest in education, provide quality amenities or institute bolder tax cuts. In the other scenario, local governments and the state could each be forced to increase their sales tax rates repeatedly to support basic services or needed investments. In this regard, the Proposition 301 sales tax increase for education could presage a future in which counties and the state compete to hike increasingly burdensome levies. Even now Governor Jane Hull's Vision 21 Transportation Task Force is considering recommending a staged .75 percent sales tax hike to provide $21 billion in transportation funding over the next 20 years. That would push the state-only sales tax to 6.3 percent and clearly would affect localities' use of the tax.

FIGURE 6

The Number of State Income Tax Credits Proliferated in the 1990s and So Did Their Cost



Source: Arizona Department of Revenue

Policies to Craft a 21st Century Tax System

How can Arizona update its unbalanced and leaky tax structure to sustain Arizona's prosperity?

Modernizing Arizona's state and local revenue system must focus on broadening and diversifying a narrow, exemption-riddled tax base. Such adjustments will help Arizona to regain a stable, rational tax system that keeps pace with a changing economy and population. But other reforms make sense too. The best package will include raising some taxes and lowering others to give Arizona a more balanced tax system than it struggles with now.

Four strategies are recommended:

Close or limit tax exemptions and special preferences.

Some clean up is a good first step. Arizona lawmakers need to stop and reverse the proliferation of tax breaks that has riddled Arizona's tax base with more than 100 new holes in the last decade. These provisions have damaged the state sales and income tax bases. They cause most taxpayers to pay higher rates and create unequal benefits for narrow industries or interest groups. They create complexity. They promote extraneous agendas in ineffective ways. Worst of all, tax exemptions and various loopholes cost the state billions of dollars by reducing the tax base when the shift to a service economy, e-commerce and demographic change are already challenging the tax system.

Lawmakers therefore should reduce significantly the number of tax preferences that exempt certain groups or certain categories of purchases from Arizona taxation. Narrow industry concessions and special interest perks, such as the sales tax exemption for health club dues, all require scrutiny. All such programs should be reviewed with an eye to their true cost and whether their aims could be better achieved in other ways. For example, the state might better serve the social goal of its exemption of food purchases from sales taxes by taxing grocery sales and then targeting low-income residents for an income tax rebate. Such reform, extended to the 46 corporate and individual income tax exemptions on the books, could begin to modernize Arizona's leaky, outdated tax system. By widening the tax base and streamlining a messy system lawmakers also could generate significant new revenue without raising tax rates.

Widen the sales tax base to include services.

Arizona also needs to rethink what it chooses to tax, if it is going to continue to depend heavily on sales taxes for revenue. As purchasing continues to shift from goods to services, it becomes imperative to safeguard the effectiveness of the sales tax by taxing sales in at least some of the fast-growing service sectors of the economy.

Granted, an extension of taxation is a tall order since nobody likes new taxes. Even Minnesota Governor Jesse Ventura failed to win a fight over taxing some professional services. Nevertheless, fairness as well as fiscal health counsel a systematic broadening of the sales tax combined with a substantial lowering of rates for both goods and services.

Arizonans, in this vein, should take a look at the list of exempted services and consider removing some. One guide to selection: Adopt public finance experts' notion that consumption taxes should only apply to the final sale to the consumer, and not to so-called business inputs. On that theory, auto repair work, dry cleaning and haircuts might all enter the tax base (total net revenue gain could be $100 million) but many professional services, legal, accounting and advertising, for example, which cater primarily to businesses, would remain untaxed. Such adjustments would minimize business sector outcry, reduce the need for future rate hikes and protect the viability of Arizona's sales tax. They also could fund an across-the-board reduction in sales tax rates.

Join the "streamlined sales tax" movement to improve collections in the digital age.

Stopping the leak of tens of millions of dollars of potential revenue to untaxable e-commerce sales is another reason to simplify and modernize sales and use tax administration. Currently dozens of jurisdictions in Arizona and 7,500 more across the country define and tax thousands of products differently. This dizzying patchwork is the main reason Internet and catalog businesses say they cannot collect and remit sales taxes to states and localities. To remedy this confusion, Arizona should join the 38 states that are currently participating in a national Streamlined Sales Tax Project to develop model legislation and technology improvements to make it easier for remote sellers of goods to remit sales taxes to states. Arizona has not been a participant in this project. By contrast, Utah Governor Mike Leavitt has been a national leader in this enterprise, having already signed reform legislation. Arizona should move now to update its most important tax for the online era, and use that work to spur a broader rethinking of the sales tax as well.

Widen the use of impact fees; raise some low rates.

Finally, Arizona needs to broaden its use of impact and user fees and raise some of its "low" rates on certain taxes to allow reductions in "high" taxes elsewhere. Figure 5 compares Arizona's per capita tax burden to the U.S. average and suggests the outline of an agenda. Based on the figures presented there, Arizona should cut some business taxes, such as the corporate personal property levy, and raise its income tax rates. Such an agenda would offer tax relief to the job creation sector, while creating more balance across the system.

Arizona also should expand its use of user and impact fees providing legal ambiguities can be worked out. In this regard, Vision 21 scores with its recommendation that the state impose a $1,000 fee on the sale of new homes to help fund transportation upgrades. Imposing more of such fees would promote balance, while linking revenue creation to the growth of the state's economy.

Together, these reforms could restore the resilience of an increasingly ineffective tax system. If undertaken together, such changes would improve the stability and fairness of a structure that has grown rickety and overly complex. Of course, tax reform requires hard choices. Still, the work of such rebalancing is worth it, for Arizona faces big challenges. Vast economic, technological, demographic and political trends threaten the future viability of Arizona's state-local tax structure. If not confronted, these changes could undermine the state's ability to make choices and invest in its future.

Notes and Sources

Survey Notes

Morrison Institute for Public Policy commissioned surveys representative of the state of Arizona and metropolitan Phoenix to provide new insights into the public's perceptions for this report.

- In March 2001, O'Neil and Associates conducted a statewide survey of Arizona employers. A total of 800 employers were surveyed with half contacted at random and half selected from a list of business participants in the Arizona School-to-Work Program. The margin of error is plus or minus 3.5 percent at a 95 percent confidence level.
- In April and June 2001, Morrison Institute participated in surveys of approximately 400 Arizona residents through the WestTrack Market Monitor, a service of WestGroup Research. The surveys have a margin of error of plus or minus 5 percent at a 95 percent confidence level.
- In June 2001, Morrison Institute also used the WestTrack Market Monitor to survey approximately 400 residents of metropolitan Phoenix. The survey has a margin of error of plus or minus 5 percent at a 95 percent confidence level.

Science and Technology Indicator Terms Used on Page 25

R&D Research and development expenditures per $1,000 of gross state product (GSP)

SBIR Small Business Innovation Research Program Awards

STTR Small Business Technology Transfer Program Awards

NAEP National Assessment of Educational Progress in Science Test Scores

S&E Science and engineering degrees

SBIC Small Business Investment Company Program provides capital for small businesses in start-up and growth situations

Technology (Tech) intensive SIC Codes refer to the number of establishments within a state that fall into one of the 28 3-digit SIC codes included in the Bureau of Labor Statistics' definition of high technology industries. These SIC codes represent the industries with the highest percentages of workers engaged in some form of R&D activity.

Patents Issued refers to the average number of U.S. patents of U.S. origin issued during the three-year period 1996-8. The level of patent activity is one measure of the amount of intellectual property being created within a state.

Inc 500 companies: Inc. magazine publishes an annual list of 500 privately held companies that are ranked on their revenue growth over the last five years. The list provides a picture of where the fastest growing, privately held companies are being created.

The 1999 Deloitte & Touche Technology Fast 500 ranks the fastest growing U.S. technology companies over a five-year period. Companies qualify as technology companies if they produce technology, manufacture a technology-related product, are technology intensive, or devote a high percentage of effort to R&D.

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